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County Hall,
Hertford.
September, 1950.

To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I have the honour to present my Report on the Public Health of the County for the year 1949—the eleventh in the series for which I have been responsible.

Last year I wrote somewhat discursively on some of the special problems which were occupying our attention during the year. I felt justified in doing so because the Medical Officer's Annual Report is, by tradition, a safety-valve in which he is privileged to write sadly or with a vaguely prophetic note which would not be countenanced in a Committee report.

Rather to my surprise, some of these paragraphs aroused considerable interest. As a result of my comments on the growing problem of water supplies versus domestic refuse, for example, I have since made contact with many people who are interested in one or other aspect of this same problem. I had thought myself to be a voice crying in a disinterested wilderness, and found that I was, in fact, but one of many voices in an admittedly discordant chorus all eager to find a solution to a common problem. One hopes that, by having brought these interests together it will be possible for me next year to report some real progress towards a solution. This year I have had to be content with a further statement on the complexities of the problem, and suggestions as to the action which should be taken to solve it. (See special report, pp. 77–83.)

This report is written at a time when it is fashionable to review the first half of the twentieth century. It so happens that the first Report of the County Medical Officer for Hertfordshire which can be traced relates to the year 1899. The Committee may be interested to compare what the County Medical Officer had to report when the service was in its infancy with a similar report fifty years later.

The contrast is interesting. It is disquieting to find that in those days the County Medical Officer had already drawn attention to things which we are inclined to regard as new problems.

On page 21 we read :—

> "It is now well known by everyone that persons suffering from Tuberculosis of the Lung, commonly known as Phthisis, or Consumption, should not sleep in the same room with healthy persons ; persons suffering from the disease should not be allowed to milk cows or perform any duties by which they are liable to transmit the germ of the disease directly or indirectly to others."

In those days it was unnecessary to blame the nursing shortage or the Regional Hospital Boards for delay in admission to a sanatorium, since there was no sanatorium.

Alternatively, in the light of statistics for 1899, we find comforting evidence of progress. The Infant Mortality Rate for the County was 120 per 1,000. The Medical Officer of Health for Hertford Rural notes that a rate of 148·6 per thousand was much too high for a rural area which is not exposed to the same hazards as a town. The rates for 1949 were 19·91 for the County and 6·33 for Hertford Rural.

There were 304 cases of diphtheria with 32 deaths, and 250 typhoid cases with 36 deaths. In 1949 the figures were 21 cases of diphtheria with no deaths, and 5 cases of typhoid with one death.

Hertford complains about the extraction of water for the New River. Ware complains about the River Lea having " a distinct sewage odour which is very offensive at times at Ware ". In those days one did not have to look for towns outside the County for the cause.

From Royston, Baldock, and Stevenage we learn that great nuisance was caused in these towns by the carting of London manure through the streets during the day. This presumably was the beginning of a problem with which we are not unfamiliar to-day.

The Medical Officer of Baldock notes that by-laws are necessary to prevent a slaughter-house being used as an entrance to a pigsty, and the Barnet Medical Officer draws the attention of his Authority to a new order " which makes it illegal to mix with other milk, or to sell or use for human food, the milk of a cow having disease of the udder, which shall be certified by a Veterinary Surgeon to be tubercular ".

The Barnet, East Barnet, and Hitchin reports all draw attention to the urgent need for an Isolation Hospital. The wheel has indeed turned full cycle. The two hospitals which were ultimately provided for these districts were found to be redundant when they were transferred to the Hospital Board in 1948.

On page 48 there is a very up-to-date note by the Medical Officer of Health for Hoddesdon, where he comments on an Infant Mortality Rate of 155·7 per thousand as follows :—

> " The Infant Mortality is much higher than it should be for a town of this description ; out of 122 births, 19 died under one year of age.
>
> In large towns, where factories exist and where mothers are engaged in work all day, leaving their children in incompetent hands, a high Infant Mortality always exists, but in rural towns where there are no such factories, this high mortality should not occur."

There is nothing to which I wish to draw particular attention in the report which follows. Once again, the Maternal Mortality Rate has been held at a satisfactory low level. I have to thank several of the senior members of my staff for contributing special articles to this Report. It is hoped that the description of the operation of the Lunacy and Mental Treatment Acts by Dr. Livingstone, the work under the Food and Drugs Act, 1938, and the various Milk Regulations, by Mr. Stringer, the contributions which describe in some detail the work of the Almoners, and the function of the Day Nurseries, will be of interest to the Committee.

Dr. Stewart's article on the Care of the Aged (pp. 62–66) should serve to focus attention on a growing problem of which the Health Committee should be aware.

In conclusion, I have with regret to put on record the fact that my predecessor, Dr. H. Hyslop Thomson, died on 2nd May, 1950. Dr. Thomson served this County from 1913 to 1940. The happy relations which exist with the Medical Services, the District Councils, and the Voluntary Bodies in this County are, to a large extent, the result of Dr. Hyslop Thomson's kindly and understanding administration during his time in Hertfordshire.

I am, Ladies and Gentlemen,

Your obedient servant,

J. L. DUNLOP,

County Medical Officer.

CHAIRMAN OF THE HEALTH COMMITTEE.

G. Rollo Walker, Esq.

STAFF.

(As at 31st December, 1949.)

County Medical Officer.

J. L. Dunlop, M.D., D.P.H.

Deputy County Medical Officer.

W. Stewart, M.B., Ch.B., D.P.H.

County Dental Officer.

A. C. Wilson, L.D.S., R.C.S.

Senior Assistant County Medical Officer.

F. D. M. Livingstone, B.A., M.B., B.Chir., M.R.C.P., D.C.H., D.P.H.

Divisional Medical Officers.

(See also page 7.)

Dacorum.

M. Gross, M.B., B.S., D.P.H., Market Square, Hemel Hempstead.

South-West Herts.

R. C. M. Pearson, M.D., M.R.C.P. (Ed.), D.P.H., Town Hall, Watford.

St. Albans.

J. C. Sleigh, M.B., Ch.B., D.P.H., 15 Hatfield Road, St. Albans.

North Herts.

V. R. Walker, M.B., Ch.B., B.Sc., D.P.H., 12 Brand Street, Hitchin.

Welwyn.

G. R. Taylor, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H., Wigmores South, Welwyn Garden City.

South Herts Division
East Herts Division } No Divisional Scheme in force.

Assistant County Medical Officers

R. M. Allinson, M.B., Ch.B., D.P.H.
A. R. Chalmers, M.D., D.P.H.
L. S. Karpati, M.D. (Graz).
H. M. Keith, M.B., Ch.B.
M. H. Kennaway, M.B., Ch.B., D.P.H.
E. M. I. McCabe, M.B., Ch.B.
M. S. Miller, B.A., M.B., Ch.B., B.A.O., D.P.H.
W. H. P. Minto, M.B., Ch.B., D.P.H.
S. J. Moynihan, M.R.C.S., L.R.C.P.
H. E. D. E. Ormiston, M.B., B.S., D.P.H.
M. Ward, M.B., Ch.B., D.P.H.

County Consulting Psychiatrist.

W. J. T. Kimber, M.R.C.S., L.R.C.P., D.P.M.

Honorary Obstetric Adviser.

F. Neon Reynolds, F.R.C.S.(Ed.)., F.R.C.O.G.

Honorary Obstetric Analgesist.

J. E. Elam, B.A., M.R.C.S., L.R.C.P., L.M.S.S.A.

Honorary County Ophthalmic Officer.
K. F. Matthews, M.R.C.S., L.R.C.P., D.O.M.S., D.P.H.

County Nursing Officer.
F. MacDonald, S.R.N., S.C.M., C.R.S.I., H.V., Q.N., M.T.D., T.A.

Senior Authorized Officer.
W. H. Finch.
(Deputy County Welfare Officer.)

Acting County Health Inspector.
J. L. Stringer, M.R.S.I., Cert.S.I.B.

Nurseries Supervisor.
H. J. Howse, M.B.E., S.R.N., S.C.M., H.V. Cert., Diploma of Mothercraft and Child Welfare.

Almoners.
S. Bone, A.M.I.A.
J. R. Horton, A.M.I.A.
M. Howard-Jones, A.M.I.A.
P. Morfey, M.A., A.M.I.A.

Social Workers, Mental Health.
E. Madders.
E. M. Morris.

Organizer of Occupation Centres.
P. E. Rock.

Chief Clerk.
P. T. H. Crandon.

Campions Ante- and Post-Natal Hostel.
Matron : E. F. Belcher, S.R.N., S.C.M.

MEDICAL OFFICERS OF HEALTH AND SANITARY INSPECTORS OF COUNTY DISTRICTS.

(As at 31.12.1949.)

Division.	*District M.O.H.*	*County District.*	*Sanitary Inspector.*
East Herts	Dr. W. H. P. Minto (A.C.M.O.).	Bishop's Stortford U.D.	Mr. A. L. Good
	*Dr. C. R. Hillis (temporary).	Cheshunt U.D.	Mr. C. Wilson
	Dr. J. Wildman	Hertford B.	Mr. J. Barnish
		Hoddesdon U.D.	Mr. W. N. David
		Sawbridgeworth U.D.	Mr. J. A. Yates
		Ware U.D.	Mr. C. J. Lucas
		Braughing R.D.	Mr. E. E. Wateridge
		Hertford R.D.	Mr. H. E. Gilby
		Ware R.D.	Mr. A. D. G. Goold.
North Herts	Dr. V. R. Walker **(Divisional County M.O.).**	Baldock U.D.	Mr. B. W. E. Makepiece
		Hitchin U.D.	Mr. N. Holt
		Letchworth U.D.	Mr. A. Jump
		Royston U.D.	Mr. S. M. Jackson
		Stevenage U.D.	Mr. H. Foden
		Hitchin R.D.	Mr S. T. Gunning
St. Albans	Dr. J. C. Sleigh **(Divisional County M.O.).**	City of St. Albans	Mr. R. E. C. Goddard
		Harpenden U.D.	Mr. E. Mengham
		St. Albans R.D.	Mr. D. J. Graham.
	*Dr. G. W. Everett (temporary).	Elstree R.D.	Mr. A. D. S. Blackhall
South Herts	Dr. A. L. Hyatt (temporary).	Barnet U.D.	Mr. C. W. Hill. (dec'd 14.12.49) Mr. J. B. Wilson (from 15.12.49)
	Dr. C. M. Scott (temporary).	East Barnet U.D.	Mr. E. Houghton.
South-West Herts.	Dr. R. C. M. Pearson **(Divisional County M.O.).**	Watford B.	Mr. R. V. Jacob
	Dr. W. Harvey	Bushey U.D.	Mr. A. C. F. Gisborne
		Chorleywood U.D.	Mr. W. E. Hands
		Rickmansworth U.D.	Mr. C. R. Alexander
		Watford R.D.	Mr. S. N. Grigg
Welwyn	Dr. G. R. Taylor, **(Divisional County M.O.**	Welwyn Garden City U.D.	Mr. M. Stockdale
		Hatfield R.D.	Mr. S. W. Wright
		Welwyn R.D.	Mr. C. B. Borthwick
Dacorum	Dr. M. Gross **(Divisional County M.O.).**	Hemel Hempstead B.	Mr. A. C. Horne
		Berkhamsted U.D.	Mr. C. E. Brogan
		Tring U.D.	Mr. E. E. Williams
		Berkhamsted R.D.	Mr. J. Oaks (dec'd 6.10.49) Mr. C. Laidman (from 2.1.50)
		Hemel Hempstead R.D.	Mr. R. H. T. Chappell

* Also holds appointment as part-time A.C.M.O.

Except where indicated, the officers named here serve County District Councils and are not on the staff of the County Council. This list is included in the Report for the information of those interested in the staffing of the Health Services in the County as a whole.

VITAL STATISTICS FOR THE COUNTY OF HERTFORD.

Table 1.

POPULATION AND ACREAGE.

	Acreage (Land and Water)	(Population At Mid-Year)			
		Estimate, 1946	Estimate, 1947	Estimate, 1948	Estimate, 1949
Urban Districts .	90,321	411,220	421,050	426,780	429,248
Rural Districts .	314,202	145,990	149,669	161,020	166,762
County . . .	404,523	557,210	570,719	587,800	596,010
England and Wales .	37,339,215	43,595,000			

Table 2.

STATISTICAL SUMMARY.

	See Table	Urban			Rural			County		
		1947	1948	1949	1947	1948	1949	1947	1948	1949
Death-rate . . .	3	10·9	9·6	10·41	10·8	8·8	9·58	10·9	9·4	10·18
Live Birth-rate . . .	5	19·5	16·6	15·67	19·2	16·7	16·63	19·4	16·6	15·94
Infant Mortality-rate .	7	29·6	22·6	20·22	34·5	25·3	20·56	30·9	23·4	20·32
Maternal Mortality . .	10	0·48	0·69	0·29	0·68	0·0	0·35	0·53	0·50	0·31
Epidemic Death-rate . .	—	0·07	0·04	0·04	0·07	0·03	0·07	0·07	0·04	0·05
Phthisis Death-rate . .	19	0·39	0·34	0·25	0·37	0·22	0·20	0·38	0·31	0·23
Cancer Death-rate . .	11	1·74	1·79	1·82	1·70	1·69	1·55	1·73	1·77	1·74
Heart Disease Death-rate .	12	2·99	2·84	3·04	3·29	2·51	3·01	3·07	2·75	3·03

This summary of the principal vital statistics is prepared from data supplied by the Registrar-General. In the Tables referred to in the second column the statistics are given in greater detail.

In this and subsequent Tables, Infant Mortality is expressed as a rate per thousand live births, and Maternal Mortality as a rate per thousand live and still births.

Table 3.

DEATH-RATE.

(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	Rate
1931–40 (Average for ten years).	3,438	10·2	1,318	10·0	4,756	10·1	12·2
1943 . . .	4,482	11·2	1,435	9·5	5,917	10·7	12·1
1944 . . .	4,313	10·8	1,505	10·2	5,818	10·7	11·9
1945 . . .	4,236	10·8	1,400	9·9	5,636	10·5	11·4
1946 . .	4,159	10·1	1,441	9·9	5,600	10·0	11·5
1947 . . .	4,576	10·9	1,623	10·8	6,198	10·9	12·0
1948 . . .	4,106	9·6	1,414	8·8	5,520	9·4	10·8
1949 . . .	4,469	10·4	1,597	9·6	6,066	10·2	11·7

Table 4.—Causes of Death, 1949.

		Age Groups—Urban Districts															Age Groups—Rural Districts															County Total	
		0 —		1 —		5 —		15 —		45 —		65 —		All Ages		Total M&F	0 —		1 —		5 —		15 —		45 —		65 —		All Ages		Total M&F		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F		M	F	M	F	M	F	M	F	M	F	M	F			
1	Typhoid and Paratyphoid fevers	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
2	Cerebro spinal fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
3	Scarlet fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
4	Whooping cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
5	Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
6	Tuberculosis of Respiratory system	—	—	—	—	—	—	26	24	31	12	12	2	69	38	107	—	—	—	—	—	—	7	11	8	4	3	—	18	15	33	140	6
7	Other forms of Tuberculosis	—	2	—	2	3	1	6	2	1	1	3	—	13	8	21	—	—	2	—	1	—	—	3	1	—	—	—	4	3	7	28	7
8	Syphilitic diseases	—	—	—	—	—	—	—	—	8	—	12	2	20	2	22	—	—	—	—	—	—	—	—	—	1	2	1	2	2	4	26	8
9	Influenza	—	1	—	1	—	—	1	1	4	4	10	11	15	18	33	—	—	—	—	—	—	—	—	2	1	—	2	2	3	5	38	9
10	Measles	—	—	1	—	1	—	—	—	—	—	—	—	2	—	2	—	—	1	—	1	—	—	—	—	—	—	—	2	—	2	4	10
11	Acute poliomyelitis and polio-encephalitis	—	—	1	—	—	1	4	5	—	—	—	—	5	6	11	—	—	—	—	2	—	2	4	—	—	—	—	4	4	8	19	11
12	Acute inf. encephalitis	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	—	—	—	—	—	—	—	—	1	1	—	—	1	1	2	6	12
13	Cancer of buccal cavity: and œsophagus (M): uterus (F)	—	—	—	—	—	—	—	2	5	15	18	9	23	26	49	—	—	—	—	—	—	—	1	3	7	8	6	11	14	25	74	13
14	Cancer of stomach and duodenum	—	—	—	—	—	—	3	1	26	11	46	50	75	62	137	—	—	—	—	—	—	1	—	4	3	18	11	23	14	37	174	14
15	Cancer of breast	—	—	—	—	—	—	—	10	—	40	1	38	1	88	89	—	—	—	—	—	—	—	3	—	16	—	18	—	37	37	126	15
16	Cancer of all other sites	—	—	—	—	1	—	14	19	111	78	164	118	290	215	505	—	—	—	—	1	—	6	8	34	15	46	49	87	72	159	664	16
17	Diabetes	—	—	—	—	—	—	—	—	4	2	7	15	11	17	28	—	—	—	—	—	1	—	—	2	1	2	5	4	7	11	39	17
18	Intercranial vascular lesions	—	1	—	—	—	—	5	6	36	60	158	277	199	344	543	—	—	—	—	—	—	3	1	11	15	55	95	69	111	180	723	18
19	Heart disease	—	—	1	—	1	1	15	12	136	73	475	589	628	675	1303	—	—	—	—	—	—	4	4	52	28	188	226	244	258	502	1805	19
20	Other diseases of circulatory system	—	—	—	—	—	—	1	4	10	23	86	114	97	141	238	—	—	—	—	—	—	—	1	4	6	23	34	27	41	68	306	20
21	Bronchitis	—	—	1	—	—	—	2	2	34	9	93	78	130	89	219	—	—	—	1	—	—	—	—	13	4	29	23	42	28	70	289	21
22	Pneumonia	12	5	3	—	1	—	6	6	20	14	42	79	84	104	188	10	4	1	1	—	—	1	3	5	5	21	24	38	37	75	263	22
23	Other respiratory diseases	—	1	—	1	1	—	3	5	17	4	16	15	37	26	63	—	—	—	—	—	—	1	1	4	4	7	2	12	7	19	82	23
24	Ulcer of stomach or duodenum	—	—	—	—	—	—	2	1	20	1	12	7	34	9	43	—	—	—	—	—	—	2	—	4	2	9	—	15	2	17	60	24
25	Diarrhœa under two years	2	2	—	—	—	—	—	—	—	—	—	—	2	2	4	1	1	—	—	—	—	—	—	—	—	—	—	1	1	2	6	25
26	Appendicitis	—	—	1	—	—	—	2	3	3	2	6	5	12	10	22	—	—	—	—	—	—	3	—	—	—	1	—	4	—	4	26	26
27	Other digestive diseases	2	1	—	—	—	—	5	5	14	9	12	36	33	51	84	—	—	1	—	1	—	3	2	4	4	6	12	15	18	33	117	27
28	Nephritis	—	—	—	—	—	—	5	4	12	10	31	41	48	55	103	—	—	—	—	—	—	1	2	3	3	14	7	18	12	30	133	28
29	Puerperal and post abortion sepsis	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	29
30	Other maternal causes	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1	2	30
31	Premature birth	22	10	—	—	—	—	—	—	—	—	—	—	22	10	32	8	5	—	—	—	—	—	—	—	—	—	—	8	5	13	45	31
32	Congenital malformation: birth injuries: infant diseases	35	31	—	2	—	1	4	4	—	2	—	—	39	40	79	13	10	2	—	—	1	1	1	1	1	—	—	17	13	30	109	32
33	Suicide	—	—	—	—	—	—	6	5	11	11	7	4	24	20	44	—	—	—	—	—	—	8	1	4	1	3	1	15	3	18	62	33
34	Road traffic accidents	—	—	1	—	1	—	16	4	7	1	4	3	29	8	37	—	—	—	—	1	—	11	1	3	—	2	—	17	1	18	55	34
35	Other violent causes	1	5	1	1	4	1	7	3	7	4	15	27	35	41	76	—	1	4	2	—	2	7	1	2	3	7	10	20	19	39	115	35
36	All other causes	—	3	—	3	6	1	19	17	31	33	125	142	181	199	380	3	1	—	2	1	1	4	9	11	12	45	59	64	84	148	528	36
	Total	74	62	10	10	19	6	152	147	548	422	1357	1662	2160	2309	4469	35	22	11	6	8	5	65	58	176	137	489	585	784	813	1597	6066	

Table 5.
LIVE BIRTH-RATE.
(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	Rate
1931–40 (Average for ten years).	4,794	14·3	1,798	13·9	6,592	13·7	14·9
1943 . . .	6,623	16·5	2,388	15·9	9,011	16·3	16·5
1944 . . .	7,460	18·8	2,644	17·8	10,104	18·5	18·0
1945 . . .	6,467	16·4	2,297	16·2	8,764	16·4	16·1
1946 . . .	7,806	19·0	2,716	18·6	10,522	18·9	19·1
1947 . . .	8,195	19·5	2,870	19·2	11,065	19·4	20·5
1948 . . .	7,065	16·6	2,691	16·7	9,756	16·6	17·9
1949 . . .	6,725	15·7	2,773	16·6	9,498	15·9	16·7

The figures given here relate only to the births which, in the opinion of the Registrar-General, were attributable to Hertfordshire residents.

Table 6.
STILLBIRTH-RATE.

	Number of Stillbirths			Stillbirth-Rate (per 1,000 total births)		
	1947	1948	1949	1947	1948	1949
Urban Districts .	152	146	139	18·2	20·2	20·3
Rural Districts .	58	59	56	19·9	21·5	19·8
Total County . .	210	205	195	18·7	20·6	20·1
England and Wales .	21,827	18,469	16,947	23·9	23·2	22·7

The County Nursing Officer has made a study of the 34 stillbirths which occurred in domiciliary practice. Her report will be found on page 32.

Table 7.
INFANT MORTALITY RATE.
(Per 1,000 Live Births.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	Rate
1931–40 (Average for ten years).	197	41	65	36	262	39	58
1943 . . .	216	33	81	34	297	33	49
1944 . . .	259	35	76	29	335	33	46
1945 . . .	215	33	75	33	290	33	46
1946 . . .	197	25	83	31	280	27	43
1947 . . .	243	30	99	35	342	31	41
1948 . . .	160	23	68	25	228	23	34
1949 . . .	136	20	57	20	193	20	32

The infant mortality rate is the number of deaths in infants under one year expressed as a rate per thousand live births. The principal causes of death in this group and the corresponding figures for last year are shown in the following table.

Table 8.

Cause of Death	No. of deaths of infants under one year		
	1947	1948	1949
Pneumonia	47	21	31
Diarrhœa	31	11	6
Prematurity	79	59	45
Congenital malformation, birth injuries, infant diseases	139	97	89

The low infant mortality rate is very gratifying. One would like to be able to claim that it was the demonstrable result of good Child Welfare Services, but one must be honest and note the fall in the number of deaths attributable to prematurity and congenital defects, neither of which is influenced—as far as is known—by any considered action on the part of the Health Authority.

The rise in the number of deaths from pneumonia is interesting. When the number in this group fell last year, one attributed it to the extended use of chemotherapy. That obviously is not the whole story since the use of new drugs and methods of treatment has of course been continued. Traditionally, pneumonia is associated with inclement weather, but the rise during a particularly mild and sunny year discredits that idea also.

Table 9.

Details of Live Births and Infant Deaths in Districts.—1949.

Districts	Live Births					No. of Infant Deaths					Infant Mortality Rate
	Legitimate		Illegitimate		Total	Legitimate		Illegitimate		Total	
	Males	Females	Males	Females		Males	Females	Males	Females		
Urban—											
Baldock . . .	49	53	1	2	105	1	—	—	—	1	9·52
Barnet . . .	169	183	10	11	373	4	4	—	—	8	21·45
Berkhamsted . .	83	75	4	4	166	1	1	—	—	2	12·05
Bishop's Stortford .	77	92	3	4	176	—	1	—	1	2	11 36
Bushey . . .	96	112	7	6	221	1	6	—	—	7	31·67
Cheshunt. . .	182	190	4	5	381	10	6	1	—	17	44·62
Chorleywood . .	26	27	1	3	57	1	1	1	—	3	52·63
East Barnet . .	252	275	8	12	547	4	2	—	—	6	10·97
Harpenden . .	121	99	4	4	228	2	2	—	—	4	17·54
Hemel Hempstead .	197	195	14	3	409	5	4	2	—	11	26·89
Hertford . . .	89	84	5	1	179	1	1	—	—	2	11·17
Hitchin . . .	144	150	6	8	308	6	—	—	1	7	22·73
Hoddesdon . .	112	103	5	4	224	—	—	—	—	—	0·00
Letchworth . .	160	165	7	5	337	3	6	—	—	9	26·71
Rickmansworth .	204	183	7	3	397	8	2	1	—	11	27·71
Royston . . .	34	25	—	—	59	1	1	—	—	2	33·90
St. Albans . .	366	364	18	17	765	5	4	1	—	10	13·07
Sawbridgeworth .	30	21	—	1	52	1	—	—	1	2	38·46
Stevenage . .	62	45	—	3	110	1	1	—	—	2	18·18
Tring . . .	47	49	1	1	98	1	1	—	—	2	20·41
Ware . . .	73	57	4	2	136	2	2	—	—	4	29·41
Watford . . .	517	502	29	33	1,081	8	12	—	—	20	18·50
Welwyn Garden City	151	153	5	7	316	2	1	—	1	4	12·66
Total Urban .	3,241	3,202	143	139	6,725	68	58	6	4	136	20·22
Rural—											
Berkhamsted . .	54	28	2	3	87	—	1	—	—	1	11·49
Braughing . .	78	97	10	1	186	3	1	—	—	4	21·51
Elstree . . .	127	125	3	7	262	5	1	—	—	6	22·90
Hatfield . . .	176	174	10	17	377	2	3	—	—	5	13·26
Hemel Hempstead .	100	86	7	10	203	4	3	—	—	7	34·48
Hertford . . .	82	67	1	4	154	—	1	—	—	1	6·49
Hitchin . . .	180	178	12	4	374	3	5	—	—	8	21·39
St. Albans . .	194	190	8	13	405	6	2	—	1	9	22·22
Ware . . .	77	77	5	9	168	2	—	—	1	3	17·86
Watford . . .	224	215	8	6	453	9	2	—	—	11	24·28
Welwyn . . .	55	47	2	—	104	1	1	—	—	2	19·23
Total Rural .	1,347	1,284	68	74	2,773	35	20	—	2	57	20·56
Total County .	4,588	4,486	211	213	9,498	103	78	6	6	193	20·32

The Deaths of Legitimate and Illegitimate children respectively in the Urban and Rural districts in the County are shown below as a rate per thousand of live births of each type.

Legitimate.		*Illegitimate*	
Urban Districts .	19·56	Urban Districts .	35·46
Rural ,, .	20·90	Rural ,, .	14·08
County .	19·95	County .	28·30

Table 10.

MATERNAL MORTALITY.

Number of Deaths of Mothers per 1,000 Births.

	Hertfordshire						England and Wales Rate
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1931–40 (for ten-year period).	130	2·7	62	3·4	192	3·1	—
1943 . . .	12	1·8	4	1·7	16	1·8	2·3
1944 . . .	21	2·8	6	2·3	27	2·7	1·9
1945 . . .	7	1·1	4	1·7	11	1·2	1·8
1946 . . .	13	1·6	2	0·7	15	1·4	1·4
1947 . . .	4	0·5	2	0·7	6	0·5	1·2
1948 . . .	5	0·7	–	0·0	5	0·5	1·0
1949 . . .	2	0·3	1	0·4	3	0·3	1·0

The Registrar-General, in determining the maternal mortality rate, selects those deaths which are directly attributable to pregnancy or confinement. On this basis, there were three maternal deaths which gives a rate of 0·3 per thousand births which for the third year in succession is a low record for this County.

Whereas the Registrar General is concerned only with the deaths which are directly attributable to pregnancy or confinement, there is a standing instruction from the Ministry of Health that the County Medical Officer should submit a special report on all maternal deaths. To comply with this instruction one has, of course, to investigate every death in which there is any association with childbirth.

By a special arrangement with the Registrar-General, I receive immediate information of the death of all women of child-bearing age in this County. Where the death appears to be in any way associated with pregnancy or childbirth, reports are obtained from the midwife, doctors, and hospitals concerned with the case, and the file is sent to Mr. Reynolds, the County Obstetric Adviser, who completes the final section in the report in which the County Medical Officer is asked to say " whether the death could have been prevented by (*a*) better ante-natal supervision, (*b*) better obstetric facilities at delivery, (*c*) specialist treatment in hospital, (*d*) intelligent co-operation of patient ". Obviously, this opinion is more usefully given by a specialist obstetrician of consultant status.

Eight Hertfordshire deaths were investigated and reported on during 1949. As will be seen from the Table, only three of these are to be classified strictly as maternal deaths, but it may be of interest to summarize Mr. Reynold's findings on these cases. In five instances, Mr. Reynolds came to the conclusion on the evidence before him that the deaths were unavoidable by modern obstetric standards. In one, he considered that there was a probability that, had a different course of action been adopted during the ante-natal period, the fatal issue might have been avoided.

In one, it was clear that, if the patient had taken the advice given during the ante-natal period, the pregnancy would not have terminated fatally.

In the eighth case, the patient had made no arrangements whatever for her confinement. The midwife was called when she went into labour. The midwife called the doctor and the case was admitted immediately to hospital,

where she died of a complication which could have been recognized and dealt with during pregnancy.

Thus, five of the eight deaths investigated were unavoidable. This is a very satisfactory improvement on the statistics for previous years. One can remember occasions on which it was maintained that fully fifty per cent of the deaths could have been avoided if complete obstetric facilities had existed and been properly used.

At one time, a proportion of the deaths was obviously due to lack of some particular facility, and it was often possible to remedy this lack by administrative action. Previous reports have shown that the falling maternal mortality rate in Hertfordshire was probably in part attributable to this action.

The complexity of the new maternity services is going to make it very difficult to ensure that this factor is kept continually in mind, because the Medical Officer or Obstetrician who knows the need is no longer the one who can meet it.

The two cases in which the patients failed to seek advice or take advice given is, to some extent, a reflection on our health education, which will be noted. It is very satisfactory indeed to find that in no case was a maternal death a direct reflection on the standard of domiciliary midwifery or obstetrics.

The reports which are coming in for 1950, however, show that it is unlikely that one will be able to make this comment in the next Report, and it is perhaps not out of place on this occasion to express one's disappointment that, so far, the new Health Service has done nothing to improve the standard of domiciliary obstetrics.

Many years ago, an attempt was made to set up County Obstetric Committees which it was hoped would gradually raise the standard of obstetric practice in this country. That idea proved to be impracticable.

When the new Health Service came into being, Obstetric Committees were in fact set up. Their first function was to determine which of the existing practitioners in a County should be entitled to call themselves General Practitioner Obstetricians, and thus qualify for a higher fee for doing obstetrics. The doctor who could not use this title had to be satisfied with a lower fee.

It was hoped by many that the Obstetrics Committees would gradually be able to impose higher standards of experience or post-graduate training for those who wished to practice obstetrics, and to arrange Refresher Courses for those so circumstanced that they had lost touch with modern practice. Many people hoped, too, that they would ultimately be able to take some effective action in dealing with the small residuum of practitioners who had been shown by experience to be unsuited to the practice of obstetrics.

The expression of this hope, usually by Consultant Obstetricians or by Administrative Medical Officers, was quite understandably resented by many practitioners. They maintained that any doctor with a registrable qualification, had been deemed capable of doing midwifery, and that no administrative action or recommendation could overrule his statutory title to practise midwifery.

On the other hand, it is well recognized that obstetrics can present complications and call for experience and judgment to a much greater extent than many abdominal operations; yet few practitioners could claim that their qualifications entitled them to do major surgery without long post-graduate studies and the most detailed supervision during their practical apprenticeship. Whatever theories we may hold, it must surely be admitted that obstetrics merit the highest standard of practice which can be achieved.

Table 11.

DEATHS FROM CANCER OR MALIGNANT DISEASES.

(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	Rate
1931–40 (average for ten years).	507	1·5	186	1·4	693	1·4	1·4
1943 . . .	711	1·8	219	1·5	930	1·7	1·7
1944 . . .	706	1·8	254	1·7	960	1·8	1·7
1945 . . .	723	1·8	235	1·7	958	1·8	1·9
1946 . . .	706	1·7	222	1·5	928	1·7	1·9
1947 . . .	731	1·8	254	1·7	985	1·7	1·9
1948 . . .	766	1·8	272	1·7	1,038	1·8	1·9
1949 . . .	780	1·8	258	1·5	1,038	1·7	1·9

Table 12.

HEART DISEASE DEATH-RATE.

(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	Rate
1943 . .	1,173	2·9	352	2·3	1,525	2·8	3·2
1944 . .	1,125	2·8	396	2·7	1,521	2·8	3·3
1945 . .	1,199	3·1	410	2·9	1,609	3·0	3·4
1946 . .	1,133	2·8	405	2·8	1,538	2·8	3·3
1947 . .	1,261	3·0	492	3·3	1,753	3·1	3·5
1948 . .	1,214	2·8	404	2·5	1,618	2·8	3·2
1949 . .	1,303	3·0	502	3·0	1,805	3·0	3·6

Table 13.

Notifications of Infectious Diseases, 1949.

(Civilians only)

	Scarlet Fever	Whooping Cough	Diphtheria	Measles	Acute Pneumonia	Cerebro Spinal Fever	Acute Poliomyelitis	Acute Polio-encephalitis	Acute Encephalitis Lethargica	Dysentery	Ophthalmia Neonatorum	Puerperal Pyrexia	Para-Typhoid	Enteric or Typhoid	Erysipelas	Chicken Pox*	Malaria	Undulant Fever	Infectious Hepatitis	Weil's Disease	Food Poisoning	Total for Districts
URBAN—																						
1. Baldock	29	29	—	7	8	—	—	—	—	—	—	—	—	—	—	97	—	—	1	—	—	171
2. Barnet	23	69	—	326	2	2	3	1	1	3	—	10	—	1	3	—	—	—	—	—	—	344
3. Berkhamsted	2	4	—	74	1	—	2	—	—	—	—	—	—	—	3	—	—	—	12	—	—	98
4. Bishop's Stortford	27	39	—	449	2	—	6	—	—	—	4	2	—	2	5	—	—	—	6	—	—	542
5. Bushey	9	17	—	250	6	—	1	—	—	—	2	29	—	—	2	—	—	—	—	—	—	314
6. Cheshunt	15	48	—	450	20	—	2	—	—	3	—	—	—	—	3	—	—	—	3	—	1	545
7. Chorleywood	2	6	—	20	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29
8. East Barnet	61	54	—	471	20	1	4	—	—	—	—	—	—	—	9	—	—	—	—	—	—	620
9. Harpenden	6	47	15	73	1	—	2	—	—	—	—	—	—	—	2	—	—	—	1	—	—	147
10. Hemel Hempstead	11	8	—	256	7	1	2	—	—	3	—	1	—	—	—	—	—	—	2	—	—	291
11. Hertford	6	2	—	129	2	—	3	—	—	—	—	1	—	—	—	—	—	—	3	—	—	146
12. Hitchin	10	41	—	24	17	—	—	1	—	—	1	2	—	—	3	34	—	—	3	—	1	137
13. Hoddesdon	11	—	—	210	9	—	2	1	—	—	—	—	—	—	4	—	—	—	—	—	1	238
14. Letchworth	17	108	—	31	19	1	6	—	—	—	—	—	—	—	9	62	—	—	2	—	—	255
15. Rickmansworth	11	31	—	94	2	1	4	—	—	—	—	—	—	—	2	—	—	—	3	—	8	156
16. Royston	—	27	—	35	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	64
17. St. Albans	71	59	4	309	19	—	7	—	—	—	1	1	1	—	6	—	1	—	8	—	—	487
18. Sawbridgeworth	4	17	—	40	—	—	—	—	—	—	—	—	—	—	1	—	—	—	2	—	—	64
19. Stevenage	13	—	—	1	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	18
20. Tring	5	—	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	25
21. Ware	1	1	—	142	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	144
22. Watford	31	64	—	779	16	—	25	—	—	—	3	31	—	—	8	—	—	—	17	—	7	981
23. Welwyn Garden City	12	206	—	301	5	—	3	—	—	1	4	6	—	—	3	—	—	—	—	—	16	557
Total Urban	377	877	19	4,489	159	6	75	3	1	10	15	83	1	3	63	193	1	—	63	—	37	6,475
RURAL—																						
1. Berkhamsted	6	4	—	56	1	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	69
2. Braughing	6	26	1	351	7	—	6	—	—	—	—	—	—	—	1	—	—	—	6	—	—	404
3. Elstree	10	55	—	72	6	—	2	—	—	—	—	1	—	—	4	—	—	—	—	—	—	150
4. Hatfield	31	61	—	281	35	—	11	—	—	—	1	19	—	—	1	—	—	—	—	—	—	440
5. Hemel Hempstead	5	3	—	88	8	1	3	—	—	—	—	—	—	—	1	—	—	1	1	—	4	115
6. Hertford	1	3	—	31	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36
7. Hitchin	13	57	—	55	7	—	2	—	—	1	—	1	—	—	—	52	—	—	—	—	—	188
8. St. Albans	22	33	1	178	4	1	9	1	—	6	1	—	1	—	5	—	—	—	4	—	—	266
9. Ware	5	24	—	182	7	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	220
10. Watford	19	17	—	143	5	—	6	—	—	1	—	—	—	—	1	—	—	—	6	—	2	200
11. Welwyn	2	1	—	74	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	79
Total Rural	120	284	2	1,511	81	2	41	1	—	8	2	21	1	—	14	52	—	1	19	—	7	2,167
Total County	497	1,161	21	6,000	240	8	116	4	1	18	17	104	2	3	77	245	1	1	82	—	44	8,642

* Notifiable only in Baldock U.D., East Barnet U.D., Hitchin U.D., Hitchin R.D., and Letchworth U.D.

Acute Anterior Poliomyelitis.

One hundred and thirty-one suspected cases were reported during 1949 :—

January .	1	April . .	–	July . .	11	October .	34
February .	1	May . .	1	August . .	15	November .	17
March . .	2	June . .	6	September .	29	December .	14

The diagnosis was confirmed in 116 cases, the age and sex distribution of which were :—

	Male.		*Female.*	
Age Groups.	*Cases.*	*Deaths.*	*Cases.*	*Deaths.*
Under 5 years . .	18	2	16	–
5–15 years . . .	21	5	16	1
Over 15 years . .	17	5	28	8
	56	12	60	9

At the end of the year a survey was made of the after-histories of the 116 confirmed cases, which revealed that 43 had made a complete recovery, 36 were still partially paralysed, 1 completely paralysed, 21 had died, and 15 were still receiving treatment in hospital.

Close liaison was maintained with the Medical Officers of County Districts who were informed in confidence week by week of all cases notified in the County. Medical practitioners also received regular information of the number of cases.

A memorandum of guidance was issued to head teachers in an endeavour to combat the spread of infection in schools. It was considered necessary, however, only to close for a period one day nursery and one nursery school in the South-West Division.

Medical Officers and Sanitary Inspectors of County Districts in Hertfordshire and the surrounding counties were invited, in August, to a conference at St. Albans, where they were addressed by Dr. A. M. McFarlan, of the Department of Medicine, University of Cambridge, who has carried out many investigations into epidemics of Anterior Poliomyelitis in various parts of the world.

It was agreed by those present to complete Dr. McFarlan's form of inquiry in all future cases of poliomyelitis notified in their respective areas and to forward a copy of this as soon as possible to him. It is hoped in this way that the present knowledge of the disease will be increased and that new facts may come to light regarding the method by which the infection is spread.

Notes on Statistical Return to Ministry of Health. (Form L.H.S. 27.)

Each year, the Health Department completes for the Ministry of Health a Return in the form of a statistical summary of the work done in connection with what used to be the Maternity and Child Welfare Services. Those members of the Committee who are not interested in the detail of these services may find a digest of the information given on this Form a useful indication of the work in this field during 1949.

Births Notified.—Total—9,768 (9,520 live ; 188 still). (All births which take place in the County should be notified and registered. The Registrar-General later adjusts registered births according to the normal place of residence of the mother. For this reason, the number of notified births does not tally with the official birth statistics shown in Tables 5 and 6.)

Prematurity.—There were 514 premature births—105 at home, 47 in nursing homes, and 362 in hospitals. Thus, 105 plus 47, i.e. 152 premature infants, were born away from the special facilities which exist—or should exist—in maternity hospitals. Twenty-six of these infants were transferred to hospital. Of the 126 who were not transferred, 114 were living after 28 days.

Infectious Diseases.

Ophthalmia Neonatorum.—Two cases occurred at home and 15 in hospital. Of the 13 who remained in this County, none had any impairment of vision as a result of contracting this disease.

Ante-natal Clinics.—There were 35 clinics holding 116 sessions per month. 2,715 mothers made a total of 10,997 attendances.

Day Nurseries.—Total Number—20.

Age Groups.	*Number of Approved Places.*	*Number on Registers, 31.12.49.*	*Average daily attendance.*
0–2 years	393	372	311
2–5 years	668	746	616

Home Helps.—Whole-time—110. Part-time—242.

Infant Welfare Centres.

Number of sessions per month.	*Number of children on registers.*	*Number of attendances.*
320	20,589	160,480

Health Visitors.—112 part-time give service equivalent to 30 whole-time health visitors. (The duties of a health visitor are usually combined with those of a school nurse and, in rural districts, they may be combined also with those of district nurses and midwives.)

Mother and Baby Home (Campions).

Accommodation.		*Average Stay.*		*No. of*
Beds.	*Cots.*	*Ante-Natal.*	*Post-Natal.*	*admissions.*
15	9	34 days	33 days	71

Home Nursing.—23 whole-time and 117 part-time nurses gave service equivalent to 67 5/12ths whole-time nurses.

Nurseries and Child Minders Regulation Act, 1948.—Four premises catering for 67 children and three minders catering for 28 children were registered.

Midwives.—In domiciliary practice there were 89 midwives employed by the local Health Authority ; 6 by the West Herts Group Hospital Management Committee, and 19 were in private practice. 134 were in hospitals and 27 in nursing homes. In domiciliary practice midwives attended 1,791 cases as midwives and 915 as maternity nurses ; in institutions, 7,115 as midwives and 1,775 as maternity nurses.

Administration of Gas and Air Analgesia.—115 of the hospital and nursing home midwives were trained in the administration of gas and air. All but one of the 95 midwives employed directly or indirectly in domiciliary practice by the Local Health Authority were trained.

There were 73 sets in use by County Council midwives. Gas and air was given in 1,356 cases by a midwife acting as such, and in 621 cases by a midwife acting as a maternity nurse. (By a reference to page 33 it will be seen that gas and air was used in domiciliary midwifery practice by the midwives in 75·7 per cent when acting as midwives, and 67·9 per cent when acting as maternity nurses.

NATIONAL HEALTH SERVICE ACT, 1946.

SECTION 21—HEALTH CENTRES.

Under this heading last year, I wrote of the vexatious delays which had occurred in the planning of a comprehensive Health Centre to serve the new L.C.C. Estate at Oxhey. This year, I have unfortunately to report that, though the plans have been completed, there is now no immediate prospect of the Centre being erected.

The complete lack of facilities for welfare centre and ante-natal services in this new estate led, during 1949, to an extensive search for temporary quarters in which these services could be provided. The L.C.C. were asked to help and, after various alternatives had been discussed and rejected, they ultimately suggested that, if certain families which were housed in Oxhey Place were given new houses on the estate and elsewhere, we might use the vacated rooms.

After a conference with the Watford R.D.C., who accepted responsibility for housing three of the families, the offer was accepted, the premises were

redecorated, and opened as a temporary Part III Health Centre in October, 1949.

The new premises had been the kitchen quarters of the house. The rooms were too small and the layout inconvenient for a busy welfare centre ; but, despite this, the ante-natal clinics and infant welfare centres established there very quickly became so popular that additional sessions had to be arranged.

It was understood at the time that our tenancy of these premises was to last only until the new health centre could be erected, and the planning of the comprehensive centre was not interrupted.

Towards the end of the year, a reply was sent to the Minister of Health in response to his request for detailed information on a formidable series of questions relating to the final details of the centre. When it seemed that these had been satisfactorily settled, the County Architect was asked to go ahead with the preparation of the working drawings while, in the Health Department, the preparation of lists of technical equipment was begun. In this connection, I have to thank Dr. R. P. Gammie, a member of the Health Committee and Chairman of the Local Medical Committee, for his assistance in advising me on the scale of provision of drugs and instruments necessary to equip the doctors' surgeries and the minor surgery unit, which formed an important feature of the Part IV services provision in the new centre.

At the end of the year, it seemed that there was every prospect that, before long, the work on the new centre would actually begin ; but there was still one important but incalculable factor which gave rise to misgivings—the question of the extent to which general practitioners would be prepared to practise from the health centre.

Originally, the Health Committee had given absolute priority to the Oxhey Health Centre on the grounds that there was a complete lack of facilities for local health authority or general medical and dental services on the new estate.

The provision of dental surgeries had already been deferred *sine die.* Temporary provision for the Part III (Local Health Authority) services had been made in premises which compared favourably with those being used in many larger and old-established communities in the County. In fact, the only justification for proceeding with the new Centre was the fact that there was apparently no place from which the general practitioners, who were to serve the new community, could practise.

Attempts to get the practitioners to commit themselves firmly to a promise to use the new centre were, however, singularly unsuccessful. The practitioners —quite understandably—maintained that, in the present state of medical practice, they could not be expected to promise to use surgeries which were to be ready for occupation at an unknown date some two years ahead, or to contract to pay an unknown rent for premises and facilities which they had not seen.

This doubt about the uncertainty of the practitioners using the new centre was very much in the mind of the Ministry of Health too, but ultimately they recognized that it was impossible to get any final reassurance on the subject, and accepted as the most satisfactory compromise an undertaking from the Executive Council that practitioners would be found to use the centre either from amongst the existing practitioners serving the estate, or by advertising vacancies for incoming doctors.

When, finally, the planning had reached the stage at which the County Council could be asked to vote the necessary money, there was a meeting of the chief officers concerned with the project to discuss any last-minute alterations in detail or in policy. At this conference it transpired that there was a prospect of the accommodation at Oxhey Place which was available for our Part III services, being progressively increased as the estate developed. This information, coupled with the knowledge that the doctors serving the estate seemed to be successfully making private arrangements for surgeries, led the Clerk of the

Council to decide that the altered circumstances must be reported to the Health Committee, so that they should have an opportunity of reconsidering their previous recommendation to build a health centre. He was reinforced in this decision by the knowledge that the Ministry of Health were in some doubt as to the practicability of going ahead with health centres on the scale first envisaged in 1946.

A special meeting of the Health Committee was called in May, 1950, at which it was decided to defer the building of the health centre until the Government's attitude towards health centres was more clearly defined. This decision was not lightly taken and, though it was undoubtedly the right one in the circumstances, it has a serious significance for those who are anxious that the new Health Service shall be developed and used to the full.

A health centre is an essential element in the service if our dreams of a happy liaison between preventive and curative medicine are to be realized. In the health centre, workers in the public health and general medical services can meet and get to know one another's work and point of view. Until this is possible the two branches of the health service can never work together to the fullest advantage. Furthermore, a health centre building will have a significance in the eyes of the public as tangible evidence of the existence of preventive and curative medical services, and as a physical rallying point for the workers in those services. General practice and the preventive medical services are always at a disadvantage as compared with the hospital services which are associated with buildings which, in themselves, excite public emotion, and common-rooms in which the staff meet and discuss their work.

During the time that the fate of the Oxhey Health Centre hung in the balance, I made it my business to canvass opinion in all quarters to see whether in the light of experience of medical practice in the new service, health centres were likely to retain the importance which they were given when the new service was under discussion. I was already uncomfortably aware of the practical difficulties of siting, designing, erecting, maintaining, and administering a health centre.

My talks with those who would be expected to work in the centres showed that they, too, had many very real problems which must be resolved before they could be expected to show any enthusiasm for this new idea in medical practice.

The financial difficulties which have already been touched on are the least of these problems. A high-level study of the whole question, and a statement of policy for the guidance of Local Health Authorities is urgently necessary. It is particularly urgent in Hertfordshire, where we are faced with four New Towns and two large L.C.C. Estates—communities in which health centres should be provided if they have any place at all in the scheme of things.

Planning is the order of the day but, at present, it looks as if medical planning will go by the board. In the absence of any clear and agreed policy, general practitioners will continue to practise from rooms in their private houses or from lock-up surgeries.

Local Health Authorities will continue to use unsuitable halls or, greatly daring, will erect *ad hoc* Part III Health Centres. If this happens, the dream of the comprehensive health centre as the link between preventive and curative medicine will be finally shattered.

SECTION 22—CARE OF MOTHERS AND YOUNG CHILDREN.

Infant Welfare Centres.

TABLE 14.

INFANT WELFARE CENTRES WITH 1948 COMPARISONS.

	No. of Centres	Sessions Held	Doctors' Attendances	No. who Attended		Children's Attendances	
				Mothers	Children	Total	Average per Session
1948.							
County Council Centres . .	78	2,569	2,127	15,699	17,369	123,775	48·2
Watford Borough (from 5.7.48)	6	258	258	—	3,308	15,882	61·6
County Council Weighing Centres	20	321	—	678	788	5,361	16·7
Totals . . .	104	3,148	2,385	16,377	21,465	145,018	—
1949.							
County Council Centres . .	90	3,361	2,758	16,861	19,778	156,234	46·5
County Council Weighing Centres	19	287	—	617	811	4,246	14·8
Totals . . .	109	3,648	2,758	17,478	20,589	160,480	—

There has been no special development in the Infant Welfare Centre service. These centres have lost none of their popularity since the introduction of the National Health Service. This is a tribute to the fact that they have been used as was intended as a means of safeguarding the health of the healthy child, and not as a cheap alternative to a visit to the family doctor's surgery.

There is still evidence of some irritation on the part of the staff, and considerable irritation on the part of the mothers on the question of prescriptions. In the old days, though no real treatment was carried out at a welfare centre, it was not unusual for a medical officer to give a mother a prescription for some simple remedy for a minor abnormality which did not call for the attention of the family doctor. The mother had this prescription made up by the local chemist and paid the charge. Nowadays the mothers expect to get prescriptions of this kind dispensed free of cost ; but, as the medical officer of a welfare centre is not practising under Part IV of the Act, he is not entitled to use the official prescription form, and the chemist cannot, therefore, provide the medicaments under the scheme.

The Ministry of Health have ruled that " medicaments" cannot be sold at welfare centres. This, to my mind unnecessarily complicated situation, is being met in three ways :—

(*a*) By telling the mother to go to the family doctor and get a prescription.

This is unpopular with the mothers, because it means that they have got to sit in a consulting room queue and bother the doctor for a prescription. It is not popular with many doctors. Patients, who add to the numbers in his surgery and announce that they have come for a prescription on the advice of another doctor, are not always welcome. The situation is a delicate one for the doctor at the welfare centre. The family doctor may not agree that the condition requires any prescription. Alternatively, he may give a different prescription without saying what has been prescribed.

(*b*) By advising the mother to take the prescription to the chemist.

Unless the mother has been warned that she will have to pay, this may lead to complaints being sent to the Ministry of Health or to the County Council.

(*c*) By keeping a small stock of medicaments at our welfare centres for distribution to mothers.

At present, the medicaments which are provided in this way include :—

Fersolate
Neo Ferrum.
Ferr. Am. Cit. mixture.
Ferrous Sulphate.
Minadex
Parrish's Food.
Sodium Citrate.
Calcium Tablets.
Grey Powders.

Table 15.

Ante-and Post-Natal Clinics with 1948 Comparisons.

	No. of Clinics	Sessions Held	Doctors' Attendances	No. of Patients who Attended		Total Attendances	Average Attendance per Session
				Ante-Natal	Post-Natal		
1948. County Council Clinics . .	34	1,156	645	3,235	503	13,487	11·7
Watford Borough (from 5.7.48) . .	3	180	180	257	96	1,529	8·5
Total .	37	1,336	825	3,492	599	15,016	11·2
1949. County Council Clinics . .	36	1,184	888	2,715	718	11,776	10·0

Ante-Natal Care.

It will be seen that there has been a fall in the number attending these clinics.

The indications are that the ante-natal clinic attended by a medical officer, a midwife, and health visitor, who combine to give clinical supervision and helpful instruction, is gradually fading out of the picture. The loss of instruction on details of preparation for the confinement and the arrival of the infant is regrettable, but studied efforts to continue this service are likely to be abortive if the mothers do not want it. If, in time, the mothers do realise that they have lost something valuable and clamour for its replacement, it will be quite possible to re-create the instructional side of these clinics.

On the other hand, the diminution in the clinical supervision which many mothers are receiving in the ante-natal period is really serious. Many general practitioners have organized private ante-natal clinics to meet the demands of the new maternity services, but often a general practitioner's conception of the amount of ante-natal care required is based on his experience in the old days when the midwife had an independent and defined responsibility for the ante-natal care of all her cases.

Under the new order, the midwife's responsibility is very ill-defined indeed. Cases have come to my notice where a general practitioner obstetrician has taken on a midwifery case, intimated that he would give all the necessary ante-natal supervision, but has failed to give the midwife any inkling of the extent of that supervision. Many midwives met this situation by continuing to give ante-natal care as heretofore, provided the patient was agreeable.

This confusion was created by administrative action when the new service was begun. If the word " health " in National Health Service has any significance, this doubt about the midwife's responsibilities must be resolved by administrative action, even if that action is not completely acceptable to all concerned.

Day Nurseries.

		Number of Approved Places at 31st December, 1949.		
		0–2 years.	*2–5 years.*	*Total.*
Barnet . . .	53 Wood Street . . .	20	50	70
Boreham Wood .	Shenley Road . . .	32	40	72
Bushey . . .	London Road	30	50	80
East Barnet . .	29 Station Road . . .	23	27	50
Hemel Hempstead .	Crêche at Nursery School, Lawn Lane	24	—	24
Hertford . . .	10 Queens Road . . .	20	28	48
Hitchin . . .	Crêche at Nursery School, York Road	15	—	15
Letchworth . .	1 Norton Way North . .	20	30	50
New Southgate .	Brunswick Park . . .	34	46	80
Redbourn . .	South Common . . .	10	30	40
Rickmansworth .	Sports Pavilion, Park Road .	7	33	40

		Number of Approved Places at 31st December, 1949.		
		0–2 years.	*2–5 years.*	*Total.*
St. Albans . .	The Elms, Hall Place Gardens .	20	35	55
,, . .	Royal Road	30	50	80
Waltham Cross .	The Chestnuts, 157 High Street	40	—	40
Ware . . .	Bowling Road	10	40	50
Watford . .	Cassiobury Park . . .	16	56	72
,, . .	Beulah Hall, Cecil Street, Watford	—	35	35
,, . .	Leggatts Way	20	60	80
Welwyn Garden City	Church Road	12	28	40
,,	Woodhall Lane . . .	10	30	40
		393	668	1,061

Medical Inspections at Day Nurseries.

Number of children inspected during 1949 1,891

Re-inspections 1,419

Defect or Disease.	*No. of Defects requiring treatment.*	*No. of Defects requiring observation, but not treatment.*
Uncleanliness . . .	—	1
Heart	2	11
Lungs	7	7
Eyes	19	20
Ears	3	6
Nose	8	14
Throat	24	60
Skin	16	9
Alimentary System .	—	1
Teeth	15	3
Nervous System . .	4	1
Deformities . . .	77	35
Other	13	23
Totals . . .	188	191

In my last report I wrote of the circumstances in which a day nursery justified itself as an established part of the social services. During the course of the year, the demand for places in our day nurseries grew, and harrowing tales of the hardship experienced by mothers with a genuine need to use the day nurseries and no prospect of doing so became almost commonplace. Requests for an extension of the day nurseries came from the Ministry of Labour and from organizations representing employers, workers, and political bodies.

These various demands were taken into account when preparing the estimates for the current year. It was found that there was a waiting list of 1,241 for the 1,061 places provided in our day nurseries.

The Health Committee were informed that they must decide between a big expansion in our day nursery service, or a drastic review of the type of case which was being admitted or accepted on the waiting list. It was shown that the reasons for the admission of a child into a day nursery could be divided into three groups :—

(*a*) Social need, e.g. bad housing ; bad parentcraft ; only child in need of company.

(*b*) Economic need, e.g. unmarried mother ; widow ; mother with sick husband with limited or no earning capacity ; and

(*c*) Industrial need.

A special sub-committee was appointed to consider the situation. In its report, it recommended that categories (*a*) and (*b*) should be regarded as having the first claim for admission to the day nurseries. It rejected category (*c*) on the grounds that it was no part of the function of the Health Committee to

subsidize day nursery places at a considerable cost to the rates in order to meet an industrial need.

The Committee's policy was embodied in an administrative instruction, and an investigation of the circumstances of children in the day nurseries or on the waiting lists was begun. This " purge " proved to be a most distasteful task to the Divisional Medical Officers and others who made the inquiries and the decisions, but the result was that in six months the waiting list was reduced to 408.

The Health Committee was undoubtedly justified in its decision to limit the use of the day nurseries to those cases in which the welfare of the child was at stake ; but a consideration of the stories of those whom we were obliged to reject and the protests received from numerous interested bodies suggest that, as long as there is housing shortage, a need for special industrial effort, and the present inconsequent attitude of many people towards their responsibilities as working members of the community, there will remain a national need to provide some way in which the trained and skilled married women need not be lost to industry. One is aware, of course, that ideally there should be no thought of a mother returning to employment until her children no longer need her care.

There is no intention of defending the present state of affairs. It must be deplored, but it must be recognized as existing. If, by taking thought, this state of affairs could be stopped, it would be the duty of the Local Health Authority to do so ; but the present situation is something beyond our ken, and it is reasonable to ask whether, if circumstances are such that innate mother-love is not strong enough to ensure that a mother devotes the time necessary to her child, we are right in asuming that the mother, who is reluctantly compelled to remain with her child because there is no way of escape, is necessarily the best person to care for it.

One often hears rather irresponsible talk about mothers who " park their children in day nurseries and go off to cinemas and hairdressers ". We believe that our strict supervision of the use of day nurseries prevents this sort of thing happening in Hertfordshire ; but, if it does happen here or elsewhere, it is not merely a question of tightening up on supervision in such a way as to stop any abuse of this kind.

The real problem is a much larger one—to discover the influences which promote this attitude of mind on the part of the mothers. It should be remembered too, that the welfare of the child is the first concern of a Health Committee and that, in safeguarding the child's health, we may appear to be pandering to an irresponsible mother who apparently deserves no consideration or help.

A great deal of thought was given to this subject when deciding how to advise the Health Committee. Some aspects of the problem which are not dealt with in the foregoing paragraphs are referred to in the report of the Supervisor of day nurseries which follows :—

Report of Day Nurseries Supervisor.

This year has been one of steady progress and every effort has been made to use the day nurseries for the care of mothers and young children as envisaged under Section 22 of the National Health Service Act.

There has been very close co-operation between nursery matrons, health visitors, and almoners, with a careful selection of the children to be admitted. The first priority has been given to unmarried mothers, widows, deserted wives and children whose fathers are disabled. The day nurseries have also been able to give temporary help to many children whose mothers were sick, but who had relatives able to take care of the children for the evenings and week-ends. Realising the need for the child to have the security of its own home, every attempt has been made to care for these children in the day nurseries so as to avoid the need for their removal to residential establishments where it is so

much more difficult to preserve the parent-child relationship and to give the individual attention necessary for healthy development.

Health visitors often recommend the temporary admission of a child because of bad housing conditions and sometimes a child is sent along with her mother for a few days if the mother is in need of parentcraft training and requires more help than can be given in the time at the health visitor's disposal. The admission of such children into day nurseries, however, throws a very heavy burden on the nursery staff, because the mothers require a great deal of help themselves if there is to be continuity in the care of the child.

As many of the children attending are drawn from problem families, parents' meetings have been arranged each month at most of the day nurseries and it is encouraging to report that there is often a 100 per cent attendance. The programmes at such meetings have included the showing of films on Child Care, cookery demonstrations, and welcome visits from psychiatric social workers of the Hill End Child Guidance Clinic who have spoken to the parents on various behaviour problems in children. These meetings are greatly appreciated and the parents have shown their gratitude by helping with toy repairs, needlework, etc., thus strengthening the spirit of friendliness between parents and staff and giving the parents both a better insight into the meaning of a day nursery service and a fuller understanding of the cost and difficulty involved in its provision.

In order to help the staff in their important work regular staff meetings have been held to which were invited speakers able to give the latest information on child welfare or an account of the work of the various departments of the Local Authority and impress upon the nursery staff their places as members of a health team. The nursery staff have worked extremely hard this year to provide the necessary play material for the children's use in the nurseries. Many have given up one evening weekly in order to make dolls, picture books, puzzles, and simple toys, etc., out of salvage material. Samples of their work were exhibited before the meeting of the Health Committee on 17th October.

During the year there was an average daily attendance of 927 children at our day nurseries. Many of the children showed a striking improvement in mental and physical health as a result of the care they received.

Another important aspect of the work is the training of the students. All the Hertfordshire day nurseries have now been approved as training centres by the Ministries of Health and Education. Students are accepted for training from the age of 16. Many come from grammar schools, having reached school certificate standard, and there is a waiting list of suitable applicants from which to select future entrants. The students now attend further education centres on two days a week and a special curriculum has been arranged for them there, which includes lectures on the health and education of the young child up to the age of 5 years. Three days each week are spent in practical work in the day nursery and work with both 0–2 and 2–5 year groups is arranged for all students. At the end of the two years, the students enter for the examination of the National Nursery Examination Board and, if successful, they receive the National Certificate for Nursery Nurses. During 1949, 31 students were successful in obtaining this certificate. Many of the Hertfordshire trainees have remained as staff nurses in the nurseries and in time may be promoted to senior posts. Some have gone on to take up hospital nursing or nursery school teaching after further training, and a minority undertook private nursery work with families. All these young women will be better wives and mothers for the training they have received.

The foregoing remarks may serve to show that the work in the day nurseries is helping to build up and strengthen the ties of family life, which have become weakened by recent events, and that the emphasis is on the use of day nurseries as a grant-aided health service of the Local Health Authority rather than as child minding establishments for the benefit of industry.

Dental Services.

Report of the County Dental Officer.

It is extremely disappointing to have to report that the County Dental Service has disintegrated still further during 1949 : three more whole-time Assistant Dental Officers have resigned, bringing the number down to nine below establishment ; six part-time officers also resigned and only two replacements were effected. The staff at the end of the year comprised four whole-time and eight part-time dental officers to whom considerable credit is due for their remaining in the service in face of the economic pressure which has caused large numbers of local authorities' staffs all over the country to enter private practice.

The section of the National Health Service Act, 1946, dealing with the care of mothers and young children lays down that " It shall be the duty of every Local Health Authority to make arrangements for the care, including in particular dental care, of expectant and nursing mothers and of children who have not attained the age of five years and are not attending schools maintained by a Local Education Authority ". Under present circumstances, this duty is not being carried out to anything approaching the extent envisaged ; as mentioned in the report for last year, the equivalent of fourteen whole-time officers would be needed to bring the service to full efficiency. The peculiar position has now arisen where the facilities which existed for the benefit of the " priority classes " are being progressively reduced as a direct result of the passing of the National Health Service Act, whereas the intention was that they should be built up and expanded. All expectant mothers were to be dentally examined as soon as possible after their first attendance at an ante-natal clinic, nursing mothers who had not received attention as ante-natal cases were to be examined, children attending welfare centres were to be seen at regular intervals until they became subject to periodical school inspections and full treatment was to be available immediately following the detection of defects in every case. In fact, all that can be done is to accept a proportion of the patients recommended by the Medical Officers, that is, the more urgent cases, leaving untouched the bulk of the work needing to be done. Unless some means are found whereby dental officers employed by local authorities can receive remuneration that bears some comparison with that obtained by practitioners in the general dental service, quite obviously the drift to that service will continue. The effect is that priority for mothers and young children is becoming almost non-existent. Although these patients are eligible to apply for " free " treatment from general practitioners the demands for attention are so great that there is no prospect of their being seen without considerable delay. The idea behind the specific provision in the Health Act for local authority dental services was to give mothers and children some guarantee that they would obtain the attention required because their needs were recognized to be of primary importance. This conception has not materialized and the consequences of dental neglect will be only too apparent in the future.

At the end of the year, dental inspection and treatment for expectant and nursing mothers and for children under five years of age were still available at the following centres :—

Abbots Langley
Baldock
Hemel Hempstead
Hertford
Hitchin
Knebworth
Letchworth
Much Hadham
St. Albans
Stevenage
Watford
Welwyn Garden City
Whitwell

Regular sessions had to be suspended at thirteen other centres during the year. Particulars of the work carried out during 1949 are given in the following table :—

(a) *Numbers provided with dental care.*

	Examined	Needing treatment	Treated	Made Dentally Fit
Expectant and Nursing mothers .	269	251	198	166
Children under five . . .	1,213	748	552	509

(b) *Forms of dental treatment provided.*

	Extractions	Anæsthetics		Fillings	Scalings or Scaling and gum treatment	Silver Nitrate treatment	Dressings	Radiographs	Dentures provided	
		Local	General						Complete	Partial
Expectant and Nursing mothers	502	49	164	123	35	9	17	—	—	—
Children under five	804	26	350	278	21	441	16	—	—	—

It will be noted that this information is presented in a different form from previous years and is in accordance with recent requirements of the Ministry of Health. The heading " Made Dentally Fit " corresponds to " Number for whom treatment was completed " in last year's report. No figure is shown under Radiographs as we have no facilities at our clinics for X-ray examinations : patients are referred to the nearest hospitals as necessary. Arrangements are made with general practitioners to provide dentures.

As already indicated, there are considerable reductions compared with last year. 1,236 less patients were seen and the attendances made by mothers and children for treatment, namely, 1,120, have fallen by 1,301.

Last year, the hope was expressed that action would be taken which would allow the County Dental Service to be developed to the extent needed for it to play its part to the full in maintaining the health of mothers and young children. To the re-expression of the hope that something will be done, must be added a plea of urgency if a complete breakdown of the service is to be averted.

Unmarried Mothers.

In last year's report, I dilated at some length on the problems associated with this scheme.

The year now under review brought fresh problems, particularly at " Campions ", where the wildly fluctuating demand for beds made one wonder alternately whether the accommodation should be increased, or whether the Home should be closed. Ultimately we reached the stage at which there was for a few days, only one mother and baby in the Home.

Calculations based on the expected date of confinement of cases on our books and a study of seasonal variations in the illegitimacy rate failed to show any grounds for believing that the Home was likely to fill up to reasonable numbers for some months to come. When the estimates for this Home were under discussion, the Finance Committee had expressed the hope that the Home would not be continued unless the average occupation could be main-

tained at 75 per cent at least, and, as there was no immediate prospect of attaining this figure, the facts were reported to the Health Committee at the beginning of 1950.

A Sub-Committee was appointed to make a detailed study of the situation. In its report, the Sub-Committee showed that circumstances had obliged Hertfordshire to set up a small Home with heavy overheads as our Hostel for Unmarried Mothers.

A hostel of this type is necessarily costly. The costs of the Home are based on the number of adult beds available, but the fact that the majority of these adults are accompanied by babies adds considerably to the running costs of the Home.

It is very difficult to maintain a high average of occupied beds in a Home of this type, because beds must be reserved for women who have gone off to hospital for confinement and are due to return in a fortnight's time. Some beds, too, have to be kept for emergencies, since one of the great values of a County Home is that the Almoners, when in real difficuties, can arrange for the immediate admission of a case if necessary.

The Committee came to the conclusion that no substantial saving could be made in the running costs of the Home but that, despite its cost, its continuance was fully justified for the present at least.

Almoner's Report.

The number of unmarried mothers continues at a high level, and during the year approximately 75 per cent have required active help. In the past few years, there has appeared a noticeable change of attitude on the part of the girls themselves and their parents, the aspect of " disgrace " being less emphasized although not wholly obsolete ; this lowering of standards has the compensation that more girls are enabled to remain at home and to assume responsibility for their own children. A number of Irish and foreign girls have been catered for and for these and for others with no home or unfriendly parents, " Campions " continues to prove invaluable as well as for those who need to get away from an unsatisfactory environment to make a fresh start. As will be seen from the figures, the " habitual offender " constitutes a minor proportion of the problem as a whole, but her care and that of her children is a very real problem, aggravated by the lack of suitable accommodation as an alternative to " Campions ".

The policy of placing unmarried mothers in suitable hospital employment during pregnancy was threatened when Brocket Hall Hospital closed down in November, 1949, but through inquiry of the respective Hospital Management Committees, it has been possible to make other arrangements which are proving satisfactory. Pregnant girls continue to be employed at Peartree Maternity Home, Welwyn Garden City, where they are confined, coming subsequently to " Campions " with their babies ; others are employed at Napsbury, Tolmer Park, and Shrodells Hospitals (the conditions at these hospitals have been investigated and approved) and are accepted at " Campions " four or six weeks before the expected date of confinement, which takes place at Wellhouse Hospital.

Difficulties in making post-natal plans for girls who wish to keep their babies and are unable to return to their own homes show a tendency to increase ; there is a persistent shortage—almost a complete lack—of foster mothers willing to accept infants, and employment where a mother can have her baby with her is no longer easy to find—possibly due to the higher rates of pay for domestic work and the larger number of foreign workers available. However, despite some anxiety on this score, every girl requiring such help has been served.

Cases referred to Almoners :—		*Ante-Natal.*	*Post-Natal.*	*Total.*
With first baby		152	79	231
,, second or more		18	9	27
Married women		30	12	42
		200	100	300
Help arranged as follows :—				
Admitted to " Campions " (see below)		28	43	71
Excluding cases admitted to " Campions "	Voluntary Home arranged	27	3	30
	Employment	36	13	49
	Residential Nursery or Children's Home	—	11	11
	Adoption per Society	—	9	9
	Day Nursery	—	8	8
	General (advice, baby clothes, etc.)	25	43	68
		116	130	246

Cases dealt with at " Campions " :—

Mother and baby returned home	14	Adopted	22
Employment arranged for mother with baby	17	Remaining at " Campions "	3
Residential Nursery arranged	8	Part III Accommodation	2
Day Nursery	4	Still-birth	1

In October, a very full discussion between two of the Almoners and Mrs. Plummer, Secretary of the National Children Adoption Association in Knightsbridge, took place on the whole question of adoption, in principle and practice. Mrs. Plummer has had 25 years' experience in this work and her views were extremely enlightening and helpful in a review of the procedure followed by the Almoners in introducing children to private adopters. In the course of the year, 36 prospective adopters were accepted on the waiting list of whom 12 remained at the close of the year. It is interesting to note that since the provision of a County Home there has been a decrease in applications from the mothers to have their babies adopted.

In 1947, of 271 mothers, 47 babies were adopted.
,, 1948, ,, 343 ,, 39 ,, ,, ,,
,, 1949, ,, 308 ,, 25 ,, ,, ,,

Child Guidance.

Dr. E. D. T. Roberts, Acting Medical Director of the Hill End Child Guidance Clinic, kindly supplied a comprehensive report on the clinic's work, which was reproduced in the Annual Report of the School Medical Officer. The following short extract relates to children of pre-school age :—

> " Of the 62 children under the age of five referred during the year, only 11 were referred from the Maternity and Child Welfare Clinics. We should very much like to develop and increase this particular service. As is shown by the records of older children, in a very high proportion of cases behaviour difficulties have already manifested themselves before school age. In referrals at a later age there is often evidence of years of misunderstanding and conflict between parent and child, much of which could have been eliminated if the child had been seen at the onset of its problems. It has been found that, in the majority of instances, treatment of the " under fives " has been particularly rewarding since a resolution of the child's problems is so often effected by a short period of contact between the family and the Psychiatric Social Worker, working under the guidance of the Psychiatrist, after the full diagnostic examination. These cases therefore represent not only an elimination of prolonged strain and much unnecessary unhappiness on the part of parents and children, but a most economical service as far as the Clinic is concerned."

NURSING SERVICES.

In the reports which follow, the County Nursing Officer deals with the Nursing Services under sections 23, 24, 25, and the Tuberculosis Health Visiting under section 28.

The happy alliance between the statutory and the voluntary nursing organizations has continued during the year. As was to be expected, there was a falling off in interest in the work of District Nursing Associations in some areas, though in a few interest remained as keen as ever.

The County Nursing Association is now concerning itself not only with current nursing problems, but also with the question of the ultimate use of the funds which it directly or indirectly controls. Under the guidance of Dr. Radcliffe, the Honorary Treasurer, the County Nursing Association is planning to merge the assets of the central and local bodies in a Trust Fund which will be administered for the benefit of nurses in Hertfordshire.

Not all District Nursing Associations agreed to associate themselves with this new venture. Some preferred to retain local funds under local control. Not unnaturally the County Nursing Association's main interest is in those Local Associations which have remained within the fold, but I am glad to have this opportunity of paying tribute to the readiness with which the County Nursing Association have helped me on many occasions, even when the problem at issue had arisen in a district which was not a party to the County Nursing Association's scheme.

In one instance, for example, where the Local Health Authority was negotiating the purchase of a Nurses' Home from a District Nursing Association which had decided to dissolve itself, it became necessary to acquire some new furniture in order to keep the Home running. One could not ask the Local Health Authority to pay for this furniture since the Home was not their property; and, in these circumstances, the County Nursing Association readily agreed to provide the furniture until such time as the negotiations were complete.

It was noted in the last Report that it was not without difficulty that the relative responsibilities of the County Nursing Association and the Local Health Authority were defined. The fact that the scheme has worked so well is a reflection of the discussion and careful thought which preceded the formulation of the final scheme. The early tribulations have been well worth while.

Nursing Staff on 31st December, 1949.

(Figures in brackets denote number with H.V. Certificate.)

	Whole-time.		*Part-time.*	
Administrative	5	(5)	—	
Health Visiting and School Nursing	42	(41)	2	(1)
Health Visiting, School Nursing, Midwifery, and Home Nursing	54	(11)	1	
School Nursing	3		2	
Tuberculosis Health Visiting	3	(1)	—	
Domiciliary Midwifery	18	(1)	—	
Domiciliary Midwifery and Home Nursing	21		—	
Home Nursing	20		16	
Home Nursing and School Nursing	6	(1)	2	

Work of the Administrative Nursing Staff.

	1948.	*1949.*
Routine inspections and special visits to Midwives and District Nurses	932	883
Visits to Health Visitors	121	144
Other special visits	459	598
Visits to Secretaries of Local Nursing Associations and interviews	300	425
Visits to Infant Welfare Centres, Clinics, and Schools	326	418
Visits to Nursing and Old Persons Homes	143	144
Visits to Nursery Schools	35	35
Visits to Maternity Homes and Ante-Natal Hostels	61	35
Attendance at meetings	179	251
Number of talks given	41	63

Reports of the County Nursing Officer.

SECTION 23—MIDWIVES SERVICE.

During the year the number of domiciliary confinements decreased, probably due to more beds being available in hospitals and also because of the expectant mothers preferring hospital confinement, which benefits them financially and relieves them of all household cares for a period of two weeks. The decrease has resulted in the full-time midwives having less cases to attend and some of the eighteen concerned have been asked to give assistance with the clean home nursing cases and to help with health visiting and clinic work.

In addition to the eighteen mentioned, twenty-one of the district nurses undertake combined duties of general sick nursing, health visiting, school nursing and midwifery work. The latter may entail delivery of from 4–20 cases per annum according to the area served.

The general balance of midwifery work appears to be shifting from the domiciliary field to that of hospital and the reduction of home confinements may require a return to the employment of the nurse capable of carrying out combined duties—this in turn will have effect upon the Part II midwifery training at present carried out within the County on behalf of Peartree Maternity Hospital, Welwyn Garden City, and King Street Maternity Hospital, Watford, as each midwifery trainee must deal with domiciliary confinements under the supervision of a trained and experienced midwife.

Midwives at St. Albans, East Barnet, Waltham Cross, Apsley End, Hatfield, and Welwyn Garden City are used for training purposes and during the year forty students received the experience required by the Central Midwives Board. In addition the training of pupil midwives by the domiciliary staff attached to King Street Maternity Hospital is continuing.

With one exception, all the domiciliary midwives employed by the County Council have been trained to administer gas and air analgesia. Only one elderly nurse who is considered too old to train is without the certificate ; her total number of cases does not exceed four a year and if the patients desire gas and air, arrangements are made for it to be administered by a midwife from a neighbouring area.

Transport for midwives is now improving and twelve new cars have been supplied during the year, but there are still a number of cars requiring replacement.

Local housing authorities have been most sympathetic in supplying houses for midwives and nurses and arrangements are being made for houses to be allocated to us in the new towns now being built.

Although the recognized Post Graduate Course for Midwives has not been a statutory obligation since the end of the war, the County Nursing Officer attended the Supervisor of Midwives Post-graduate Course and two midwives attended the Post-graduate and Refresher Course arranged by the Royal College of Midwives.

	1948.	*1949.*
Number of Midwives who practised in the County during the year	408	400
Number practising on 31st December	291	275
Number of these qualified to administer analgesics in accordance with the requirements of the Central Midwives Board	204	210
Number of ante-natal visits paid by Midwives	18,164	23,221
Total number of confinements attended by Midwives	11,682	11,596
(*a*) In Institutions	8,870	8,890
(*b*) Domiciliary	2,812	2,706
Number of domiciliary confinements attended—		
(*a*) By Midwives alone	1,883	1,791
(*b*) As Maternity Nurses	929	915
Number of Medical Aid notices issued (hospital and domiciliary)	1,217	690

TABLE 16. MIDWIVES AND THEIR WORK FOR THE YEAR 1950

District	Live Births (Registrar's Figures)		Total Confinements attended by Midwives		Infant Deaths			Notifications: Medical Aid		Notifications: Stillbirth		Maternal Deaths (Midwives Domiciliary Cases)	Midwives employed by Local Supervising Authority		Midwives employed by Hospital Boards		Midwives in Private Practice		Total Number of Midwives	
	Legitimate	Illegitimate	As Midwife	As Maternity Nurse	No. of Deaths Under 1 year (Registrar's Figures)	Rate per 1,000 Live Births	Midwives' cases (Domiciliary) under 14 days	Mother	Child	As Midwife	As Maternity Nurse		Domiciliary	Institution	Domiciliary	Institution	Domiciliary	Institution		
URBAN.																				
1. Baldock	102	3	18	15	1	9·52	—	6	—	—	2	—	2	—	—	—	—	2	1	
2. Barnet	352	21	919	140	8	21·45	—	2	—	18	6	—	2	—	—	21	—	3	26	2
3. Berkhamsted	158	8	23	49	2	12·05	—	7	1	—	4	—	2	—	—	—	—	2	4	3
4. Bishop's Stortford	169	7	686	74	2	11·36	—	107	6	9	6	—	2	—	—	13	2	—	17	4
5. Bushey	208	13	925	28	7	31·67	—	19	1	20	1	—	1	—	—	11	—	1	13	5
6. Cheshunt	372	9	82	104	17	44·62	—	16	3	1	3	—	5	—	—	—	2	—	7	6
7. Chorleywood	53	4	10	13	3	52·63	—	—	—	—	—	—	1	—	—	—	1	—	2	7
8. East Barnet	527	20	82	54	6	10·97	—	32	3	3	—	—	3	—	—	—	1	—	4	8
9. Harpenden	220	8	17	244	4	17·54	—	5	2	—	3	—	1	—	—	8	—	—	9	9
10. Hemel Hempstead	392	17	823	18	11	26·89	3 (2P)	17	1	13	1	—	2	—	—	12	—	—	14	10
11. Hertford	173	6	340	57	2	11·17	—	15	—	5	1	—	2	—	—	6	—	—	8	11
12. Hitchin	294	14	984	413	7	22·73	—	34	3	13	11	—	2	—	—	15	2	3	22	12
13. Hoddesdon	215	9	29	149	—	—	—	17	2	1	1	—	2	—	—	—	—	3	5	13
14. Letchworth	325	12	31	55	9	26·71	—	1	—	3	1	—	1	—	—	—	—	—	1	14
15. Rickmansworth	387	10	155	66	11	27·71	—	12	1	3	1	—	2	—	—	—	—	—	2	15
16. Royston	59	—	24	128	2	33·90	—	2	—	—	3	—	1	—	—	1	—	2	4	16
17. St. Albans	730	35	785	195	10	13.07	2 (2P)	88	18	13	8	—	3	—	—	18	—	5	26	17
18. Sawbridgeworth	51	1	20	15	2	38·46	1	3	—	—	—	—	1	—	—	—	—	1	2	18
19. Stevenage	107	3	22	16	2	18·18	—	2	—	—	—	—	2	—	—	—	—	—	2	19
20. Tring	96	2	23	10	2	20·41	1	5	1	—	—	—	1	—	—	—	1	—	2	20
21. Ware	130	6	29	13	4	29·41	—	15	2	1	—	—	3	—	—	—	—	—	3	21
22. Watford	1,019	62	1,201	250	20	18·50	—	111	24	23	6	—	—	—	6	23	1	5	35	22
23. Welwyn Garden City	304	12	432	205	4	12·66	—	13	4	5	3	—	1	—	—	6	1	1	9	23
Total for Urban Districts	6,443	282	7,660	2,311	136	20·22	7 (4P)	529	72	131	61	—	42	—	6	134	11	26	219	
RURAL.																				
1. Berkhamsted	82	5	17	10	1	11·49	1	6	1	1	—	—	3	—	—	—	—	—	3	1
2. Braughing	175	11	40	28	4	21.51	—	9	2	1	—	—	4	—	—	—	2	—	6	2
3. Elstree	252	10	59	13	6	22·90	—	8	3	1	—	—	3	—	—	—	1	—	4	3
4. Hatfield	350	27	734	116	5	13·26	—	2	—	10	5	—	6	—	—	—	—	—	6	4
5. Hemel Hempstead	186	17	37	28	7	34·48	—	6	1	—	1	—	3	—	—	—	—	—	3	5
6. Hertford	149	5	36	13	1	6·49	—	4	—	—	—	—	4	—	—	—	1	—	5	6
7. Hitchin	358	16	92	58	8	21·39	—	11	—	1	3	—	11	—	—	—	2	—	13	7
8. St. Albans	384	21	62	45	9	22·22	—	10	2	1	—	—	5	—	—	—	1	—	6	8
9. Ware	154	14	34	12	3	17·86	—	8	—	1	—	—	3	—	—	—	—	—	3	9
10. Watford	439	14	124	52	11	24·28	—	10	1	3	—	—	4	—	—	—	1	1	6	10
11. Welwyn	102	2	11	4	2	19·23	—	3	2	—	1	—	1	—	—	—	—	—	1	11
Total for Rural Districts	2,631	142	1,246	379	57	20.56	1 (–P)	77	12	19	10	—	47	—	—	—	8	1	56	
Total for Urban Districts	6,443	282	7,660	2,311	136	20·22	7 (4P)	529	72	131	61	—	42	—	6	134	11	26	219	
Total for County	9,074	424	8,906	2,690	193	20·32	8 (4P)	606	84	150	71	—	89	—	6	134	19	27	275	
			11,596					690		221										

P = Premature.

Stillbirths. See next page for report by County Nursing Officer on Stillbirths in domiciliary practice.

Stillbirths in Domiciliary Practice.

Thirty-four stillbirths which occurred in domiciliary practice were notified in accordance with the rules of the Central Midwives Board.

Investigation revealed that :—

1 case was booked for hospital confinement but was attended by a domiciliary midwife as an emergency case.
16 had engaged a doctor
15 had engaged a Midwife.
2 had not booked a Doctor or Midwife and had received no ante-natal supervision.

The causes of stillbirth have been classified as follows:—

Malformations	7
Breech presentation	5
Macerated foetus	9
Cord round neck	2
Toxæmia of mother	1
Pyelitis of mother	1
Accident to mother during pregnancy	1
No apparent cause	8

The stillbirth rate for the County compares favourably with the Registrar General's figures for England and Wales. I am satisfied that the standard of midwifery throughout the County is good and I consider that this, to some extent, is a factor in maintaining the low stillbirth rate in Hertfordshire.

Note on relation between Part II Training Schools of the Regional Hospital Board and the Domiciliary Midwifery Service of the Local Health Authority.

Midwifery training is divided into two parts. Part I is taken entirely in hospital. A certain amount of work for Part II must be done " on the district ".

When staff for maternity homes is hard to come by, the Training School usually fares best because, as in medicine, it is often claimed that a teaching hospital or maternity home gives better training and experience than one where no teaching is done.

There is no dearth of Part I Training Schools in the country, since this status can be accorded by the Central Midwives Board to any Unit which is of the requisite size and maintains the necessary standard of staffing.

There is, on the other hand, a shortage of Part II Training Schools, since some of the Part II training must take the form of practical experience in domiciliary midwifery.

The County Maternity Home at Watford was a well-established Part II Training Home with a Midwife-Teacher, and a staff of District Midwives. The pupils did a proportion of their training in the Home, their domiciliary practice was originally obtained in the Borough of Watford but, when the demand for cases exceeded the supply, the scheme was spread to Hemel Hempstead and St. Albans.

In framing its proposals under the National Health Service Act, the Health Committee foresaw the desirability of allowing King Street Maternity Home to carry on as a Part II Training School, and an arrangement was made with the Regional Hospital Board whereby they were able to run the domiciliary midwifery service in Watford on an agency basis. The County Council repays a proportion of the salary of the Matron, the whole of the salaries of the Midwives, and provides the pupils with board and lodging in the two Pupil Midwives' Homes in Watford and, since August, 1949, in an additional Home in Oxhey. The work at Oxhey has increased from six cases a month when the Home was opened, to twelve a month in the spring of this year. There was, during 1949, an increase of seventy domiciliary cases in the area covered by the pupil midwives from the Watford Maternity Home. The work is expected to increase still further as the Oxhey estate and new housing estates in north Watford continue to develop.

There are other Maternity Homes in the County which are directly or

indirectly associated with Part II Training Schools, and there has been a growing demand on their part for facilities for training in domiciliary midwifery within this County. This demand was met by posting pupils to work with some of the more experienced county midwives in the areas where there was a reasonably large number of domiciliary confinements.

An increasing tendency to go to hospital for confinement has made it difficult to find a sufficient number of these districts. It is not without misgivings that one has gone to some trouble to make this domiciliary experience available to the training schools. Most of the pupils, when they have completed training, work for a time at least in the hospitals and, as the hospitals become better staffed, they will be able to take more maternity cases into hospital unless deliberate action is taken to admit only those cases which require a hospital bed.

The keen district midwife becomes restive if she does not get enough domiciliary midwifery. In many districts, the number of cases within a workable area is now barely sufficient to keep a midwife fully occupied. By posting pupils to work with midwives, one of course emphasizes the problem and tends to discourage still further the district midwife who sees her practice diminishing. In fact, the divorce between the hospital and domiciliary midwifery services has led to the fantastic " nursery rhyme " situation, in which domiciliary midwifery is being increasingly exploited to train pupil midwives who will go to staff the maternity hospitals which, if unchecked, bids fair to lead to the virtual disappearance of domiciliary midwifery. This process can be stopped only if the Hospital Boards will insist that maternity beds are used only where their use is justified on medical or social grounds. There are many medical reasons against the normal maternity case with a good home going into hospital for her confinement. The arguments in favour of her doing so are mostly economic ones which could have been obviated.

The midwife who can competently deliver the woman in her own home is practising her art in its finest form. It is a thousand pities that many district midwives should now with justice feel that they are being left to minister to those women who cannot manage to secure a bed in hospital.

Gas and Air Analgesia.

The County Council has provided 73 sets of Gas and Air apparatus for use in domiciliary confinements. Administratively there is no reason why every midwifery case in this County should not have Gas and Air if she elects to do so. In nine of the midwifery areas Gas and Air was given to every case attended by a midwife, but one must always expect to find a percentage of cases in which either the mother is unwilling to have it, or the circumstances of the birth make it impossible.

The following figures for 1948 and 1949 show the number of midwives qualified to administer Gas and Air, and the extent to which the available apparatus was used in domiciliary practice.

Midwives.

(Position at 31st December.)

	No. practising.		*No. qualified to administer Gas and Air.*	
	Institutional.	*Domiciliary.*	*Institutional.*	*Domiciliary.*
1948	165	126	107	97
1949	161	114	115	95

Use of Gas and Air Apparatus in Domiciliary Practice.

		Confinements.			
		No. attended by :		*No. in which Gas and Air given.*	
	No. of sets available.	*Midwives.*	*Maternity Nurses.*	*Midwives.*	*Maternity Nurses.*
1948	63	1,883	929	1,142 (60·6%)	530 (57·1%)
1949	73	1,791	915	1,356 (75·7%)	621 (67·9%)

SECTION 24—HEALTH VISITING.

The staffing position during the year has been good, due to the scholarships offered by the County Council whereby candidates are available from time to time to fill vacancies. During the year, six Health Visitors completed their training, and one other took the combined course of training as a Health Visitor and Queen's Nurse. Apart from candidates trained under the County Scheme, staffing has been difficult, probably due to delay in Whitley Council discussion regarding domiciliary salaries, which at present compare unfavourably with those of institutional staff.

Hertfordshire assists the London County Council in training Health Visitors by allowing the students the opportunity of seeing practical work including clinics. Nine students so placed have received valuable instruction. Often the system proves of value to the County as, eventually, the students may desire to obtain employment here when they know the conditions and facilities available. The County administration ranks high with the Training Colleges, and the Royal College of Nursing frequently sends students for the Advanced Administration Course to County Hall to observe methods of administration in all branches of the Health Service.

The Ministry of Health recommends that all Health Visitors attend a Post-Certificate Course every three years. No Health Visitor attended during 1949.

Reorganization of Services.—Consequent upon the coming into force of the National Health Service Act, and the central control of appointments to the staff, it has been decided that better service in respect of health visiting can be achieved by supplying full-time Health Visitors to urban areas, instead of relying upon nurses and midwives fitting in the work with other district duties. This ensures regular visits to children under 5 years of age; special visits for all types of home inquiries; full attendance at the various types of clinics dealing with child welfare, and at school medical inspections; and also ensures that hygiene inspections are carried out in the schools at regular intervals. The urban areas in which the services have been reorganized are Bushey, Rickmansworth, and Boreham Wood.

Uniform.—In some districts, Queen's Nurses holding the Health Visitors' Certificate carry out full-time health visiting duties, and actually do not undertake any district nursing work. Each of these has had the option of continuing to wear the Queen's Nurse's uniform if they wish, and six have decided to do so. All other Health Visitors and Tuberculosis Nurses wear the brown County uniform.

TABLE 17.

WORK CARRIED OUT BY HEALTH VISITORS DURING 1948 AND 1949.

No. of New mes Visited		No. of Babies under Supervision, 31st December		Health Visits to Mothers and Babies		No. of Children aged 1–5 years under Supervision, 31st December		Visits to Children 1–5 years		Health Visito Attendances Welfare Centr	
48	1949	1948	1949	1948	1949	1948	1949	1948	1949	1948	194
068	12,192	10,312	9,890	68,111	67,048	34,060	35,367	73,928	79,151	7,473	8,61

	CHILD LIFE PROTECTION.		ADOPTION OF CHILDREN.	
	No. of Foster Children Visited.	*No. of Visits Paid.*	*No. of Children Visited.*	*No. of Visits Paid.*
1948 . .	234	1,509	237	1,003
1949 . .	235	1,084	189	874

See page 47 for details of Tuberculosis visiting by Health Visitors.

NOTE.—Statistics for 1948 include the Borough of Watford from 5th July, 1948, only.

SECTION 25—HOME NURSING

The call upon the nurses' time in respect of general sick nursing work has not shown the sharp increase anticipated prior to the passing of the National Health Service Act and probably this is due, in part, to some confusion existing in the minds of the public, who are uncertain of the function of the one-time Nursing Association Committees and do not realize that a nurse's services can be obtained before a doctor visits. Some doctors appear uncertain as to the nursing help available for any type of patient requiring domiciliary treatment. The nurse can be called in to any case requiring nursing care, whether bedridden or not, and will maintain close liaison with the doctor in attendance on the case. The work now entails more evening visits due to modern drug treatment and evening injections being required.

The Watford Queen's Key Training Home, with the use of the St. Albans Home, trained seven candidates during the year and these were available to continue work at Watford and in other parts of the County.

In addition, nurses resident in small houses throughout the County have had student Queen's nurses from London Training Homes placed with them for a few days to gain an insight into work in rural areas and twenty-seven have had the benefit of this experience.

It will be noted that apart from carrying out the nursing and health visiting services in an adequate manner, the nurses are of immense value in giving training on a wide scale to students from other authorities, which all reacts to the good of the County, as the staff have a sense of achievement and responsibility in assisting with this work. County Nursing Officers and Superintendents from other Counties have also visited County Hall to obtain knowledge of our methods of inspection and record keeping.

Home Nursing by District Nurses, 1949.

	Cases Attended.	*Visits Paid.*
Medical, Surgical, and General	14,103	297,429
Tuberculosis	162	6,460

SECTION 26—VACCINATION AND IMMUNIZATION.

The distressing failure to agree on the fee to be paid to practitioners in respect of this work continued during the year, and it was not until March, 1950, that the Local Health Authority were informed what fee should be paid. In these circumstances it is the more gratifying to record an increase in the total number of vaccinations and immunizations.

TABLE 18.

VACCINATIONS.

Year	Primary		Revaccinations	Total during year	No. of live births during year	Percentage vaccinated under one year of age
	Under one year of age	Over one year				
1942	2,714	381	221	3,316	9,213	29·5
1943	2,717	193	77	2,987	9,011	30·2
1944	3,175	3,881	2,415	9,471	10,104	31·4
1945	2,439	260	112	2,811	8,764	27·8
1946	3,453	393	366	4,212	10,522	32·8
1947	3,405	384	427	4,216	11,065	30·8
1948	2,400	324	563	3,287	9,756	24·6
1949	2,562	560	966	4,088	9,236	27·7

Diphtheria Immunization.

Year.	*Number of Children who completed a Full Course of Primary Immunization.* *Under 5 years of age.*	*Over 5 years of age.*	*Number given a Reinforcing Injection.*
1948	7,466	1,136	5,664
1949	7,047	1,449	5,946

SECTION 27—AMBULANCE SERVICE.

Report of County Ambulance Officer.

During the twelve months ended 31st December, 1949, demands on the Ambulance Service continued to increase. Details of cases dealt with are given later in the report, but it is interesting to compare monthly returns with the corresponding monthly returns available for 1948.

	1948. No. of Cases.	*1949. No. of Cases.*	*Increase.*
July	2,592	7,288	4,696
August	3,162	6,214	3,052
September	4,048	6,984	2,936
October	4,523	8,107	3,584
November	4,420	7,300	2,880
December	5,283	7,697	2,414

The number of calls varies at regular times each day and peak periods are experienced between certain hours. Duty rotas are arranged so that the number of ambulances and sitting case cars varies at different times to meet the fluctuating demands. The availability is now as follows :—

	7 a.m.– 9 a.m.	*9 a.m.– 5 p.m.*	*5 p.m.– 11 p.m.*	*11 p.m.– 7 a.m.*
Watford	2	4	2	2
Rickmansworth	1	1	1	1*
Hemel Hempstead	1	2	1	1
Berkhamsted	1	1	1	–
Harpenden	1	1	1	–
Boreham Wood	–	1	–	–
St. Albans.	1	3	1	1
East Barnet	1	1	1	1
Barnet	1	2	1	–
Cheshunt	1	1	1	1
Hoddesdon	–	1	–	–
Hertford	1	2	1	1
Ware	–	1	–	–
Hatfield	1	1	1	–
W. G. City	1	2	2	1
Bishop's Stortford	1	2	1	1
Hitchin	1	2	1	1
Letchworth	1	2	1	1
Stevenage	1	1	1	–
Royston	1	1	1	–
	18	32	19	12

* Three nights per week only.

The above availability includes sitting case cars which are alternatively manned according to need. It is possible to reduce the number of men on duty at week-ends, when out-patient departments are closed.

Hospital Boards have continued to co-operate in connection with the removal of infectious cases. Returns received from Isolation Hospitals indicated that the ambulances stationed at the Aldbury and Hemel Hempstead Isolation Hospitals were very rarely used and they have been placed in general service. The Watford Isolation Hospital ambulance can normally deal with cases arising in this area. The Letchworth and Barnet Isolation Hospitals are no longer infectious diseases hospitals and the ambulances have been placed in the general pool which now deals with infectious cases in these districts, special arrangements having been made for disinfection.

The Hospital Car Service dealt with 25,657 cases during the year. From the 1st July to the 31st December, 1949, this Service carried 13,219 cases, compared with 8,851 cases in the corresponding period of 1948, an increase of 4,368 calls.

Reciprocal arrangements with adjoining authorities are operating satisfactorily. The County Councils Association, the Association of Municipal Corporations, and the London County Council agreed on standard charges of 2*s.* a mile for ambulances with driver and attendant and 6*d.* a mile for sitting case cars. The County Council adopted these charges and negotiations have been completed with adjoining authorities to vary any existing financial arrangements which did not comply.

Section 24 of the National Health Service (Amendment) Act, which came into operation on the 16th December, 1949, provides that " where a person is transported from a place in the area of one Health Authority to a hospital in the area of another Health Authority, and is returned within a period of three months, the responsibility for his conveyance by ambulance or other means of transport remains with the Authority of the area from which he was originally transported ". A considerable number of cases are sent to hospitals outside the County and the County Council will have to meet appreciable expenditure on ambulance transport provided by the Local Health Authority, except where arrangements can be made for Hertfordshire ambulances, who might otherwise be returning empty, to pick up these cases.

The heavy increase in calls has caused concern and, in an effort to reduce the demands made on the service, doctors and hospitals have again been circularized and asked to limit their requests to cases where medical transport is really necessary.

During the year, eleven births have occurred in ambulances and fourteen in homes on arrival of the ambulance. The instruction given on emergency midwifery has enabled the ambulance staff to deal efficiently with all cases.

The St. John Ambulance Brigade continues to provide a regular night ambulance at Watford Ambulance Station and a night ambulance three nights weekly at Rickmansworth Ambulance Station.

In view of the greatly increased mileage, the repair and maintenance of ambulances has presented some difficulty, but delivery of some of the new Daimlers has done much to ease the position. Ten W.D. type ambulances have been converted and overhauled and are now effective units. The repainting and overhauling of the rest of the fleet has been carried out as circumstances permit.

DETAILS OF CASES DEALT WITH DURING 1949.

	Jan.	Feb.	March.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Total Mileage
Accidents . . .	200	214	198	293	231	255	343	279	303	334	238	289	3,177	
Sudden Illness . .	270	300	282	300	240	243	312	228	253	321	253	296	3,298	
Removals . . .	2,434	2,725	2,939	3,618	3,309	3,006	4,050	3,172	3,735	4,677	4,111	4,534	42,310	
Removals (Maternity) .	252	260	351	367	305	327	316	292	282	357	230	311	3,650	
Total . . .	3,156	3,499	3,770	4,578	4,085	3,831	5,021	3,971	4,573	5,689	4,832	5,430	52,435	651,030
Hospital Car Service .	1,860	1,908	2,333	1,954	2,306	2,077	2,106	2,176	2,280	2,253	2,309	2,095	25,657	708,264
Isolation Hospitals . .	37	65	119	112	73	53	112	22	79	117	116	129	1,034	10,236
Tuberculosis Dept. (Mr. A. E. Kemp—private contract) . .	47	49	42	51	49	46	49	45	52	48	43	43	564	6,761
	5,100	5,521	6,264	6,695	6,513	6,007	7,288	6,214	6,984	8,107	7,300	7,697	79,690	1,376,291

SECTION 28—PREVENTION OF ILLNESS—CARE AND AFTER CARE.

On the Appointed Day, the Health Committee employed two Almoners specializing in tuberculosis work, and two dealing with unmarried mothers and the social work at the V.D. Treatment Centres.

In the last report reference was made to the difficulty of defining our responsibilities under Section 28 and, because of this difficulty, it was considered inadvisable to make any substantial change in the duties of the T.B. Almoners. Indeed, Miss Horton, for a time, continued to do the internal almoning at Ware Park Sanatorium at the request of the Hospital Management Committee.

It was realized, of course, that it was wasteful to have two lots of specialized Almoners operating from County Hall, and many conferences were held to discuss how the work could best be reorganized. In April, 1949, it was decided that the break must be made and, despite misgivings on the part of the four Almoners, it was agreed that their duties should be rearranged so that, with minor exceptions, they became "all-purposes Almoners" working in hospital catchment areas related to the County Health Divisions.

ALMONERS' DUTIES FROM 1ST MAY, 1949.

Division.	*General After-Care.*	*Mental After-Care.*	*Tuberculosis.*	*Unmarried Mothers.*	*V.D. (women).*
South-West .	Miss Howard Jones	Miss Howard Jones	Miss Howard Jones	Miss Howard Jones	Miss Howard Jones
*Dacorum .	Miss Bone	Miss Bone	Miss Bone	Miss Bone	Miss Bone
North . .	Miss Horton	Miss Morfey	Miss Horton	Miss Morfey	Miss Morfey
East . .	,,	,,	,,	,,	,,
South . .	,,	,,	,,	,,	‡Miss Morfey / Miss Bone
Welwyn . .	,,	,,	†Miss Horton / Miss Bone	,,	‡Miss Morfey / Miss Bone
St. Albans .	Miss Bone	,,	Miss Bone	,,	Miss Bone

* Miss Bone to link with Miss Howard Jones in almoning work referred from the West Herts Hospital Management Committee.
† Visits in the towns of Hatfield and Welwyn Garden City are made by Miss Bone.
‡ Venereal Diseases patients attending St. Albans Clinic are visited by Miss Bone; others by Miss Morfey.

It will be appreciated that, though these officers have all been trained in the full range of an almoner's duty, they had, for some years past, been specializing in that branch of the work in which they were most interested. It was no small thing to ask them to revert to general duties, but they did so, and I am glad to have this chance of acknowledging the loyalty with which they applied themselves to their new type of work.

It will be noted that Miss Morfey is not doing any tuberculosis after-care, and that Miss Horton is not dealing with the unmarried mothers. It was felt that, as there was no Divisional Health Office in East Herts or South Herts, there was no special reason for insisting on the "all-purpose" principle in these areas.

The reports of the Almoners have been written, in some cases, in a much more intimate style this year. It is always difficult to report on social work statistically. An attempt to do so was made by the introduction of a Quarterly Statistical Return but even this relatively elaborate Return is unsatisfactory. On several occasions, after having studied it, I had discussions with the Almoners and, whereas studying the Return made one wonder whether they were fully occupied, hearing them discuss their work, made one much more sensible of the valuable but unrecorded help which they were giving throughout the County. For this reason, I suggested that the Committee might be interested if, in this year's Report, they could illustrate the scope of their work by reference to cases which were based on actual experience.

Anyone reading these stories might very justifiably ask whether there was not an overlap between the duties of the Health Visitor and the trained Social Worker. This is a point which has been exercising senior medical officers of Local Health Authorities during the past year. The shortage of Health Visitors is such that one is loth to employ them on duties which can well be

done by other officers, and it is felt that the Health Visitor's first responsibility is towards the nursing mother and the young child and her training is specifically directed to fit her for this work. The Social Worker, on the other hand, is of course not given any training in supervising the health of mothers and young children, but she is given a very extensive training in the correct approach to social problems ; and it is necessary for her to have an encyclopædic knowledge of the charitable organizations which exist, and their precise function in the scheme of things. The type of problem which is dealt with by an Almoner does not concern the health of the patient so much as ensuring that the patient and family have the environment and creature comforts which will contribute towards maintaining or restoring health.

In practice, there is a strong case for arguing that, in many instances, both the Health Visitor and the Social Worker could usefully combine forces. This has led to an interesting suggestion that Nurses, instead of training as a Health Visitor only should be given training which would entitle them to take a University Diploma as a Social Worker. Undoubtedly, a nursing officer with a Social Science training would be a very valuable member of a Local Health Authority staff, and the effort to institute a training scheme of this kind will be watched with considerable interest.

General After Care.

almoners' reports.

South-West Herts Division.

It is the intention of the County Almoners to pool their experiences of this branch of their work in order to achieve a constructive plan. Many of the cases referred have been " follow-up " cases rather than a continuation of detailed case work. In some ways this has proved disappointing, but from the point of view of the hospital, the friendly follow-up visit is probably of great importance. A number of patients have been referred to the Almoner by General Practitioners, and there has been a tendency for this number to increase during the last few months of 1949. The majority of these patients have been referred for convalescence, though several of these cases have been in need of other help and advice. It has been extremely difficult to obtain convalescent vacancies at times, and in two cases the waiting list proved so long that the patients had to return to work. In three instances the Almoner was able to convalesce patients through the Regional Hospital Board, but these patients, though non-hospital cases, were in need of medical care, e.g. physiotherapy, special diet, or nursing care.

North Herts ; South Herts ; East Herts, and Welwyn Divisions.

Of a total of 22 cases referred to the Almoner for assistance under Section 28, 14 were cases referred by General Practitioners for convalescent holidays ; 7 of these were sent to St. Leonards, one to St. Joseph's, Bournemouth, and one was not accepted ; another arranged to go away via her Friendly Society, four cases were unfit for convalescence and were referred back to their own doctors or to hospital, and the last case was turned down as being unsuitable for St. Leonards or any other convalescent home ; no further action was taken in this case as it was known that a holiday could suitably be arranged with relatives.

One or two of these patients who were sent away were first helped with clothing via the W.V.S. and the National Assistance Board.

All, except one patient who it is unlikely could be very happy anywhere, enjoyed their holiday and were much improved in health.

Five patients were referred by Hospital Almoners for follow-up after discharge from hospital. Of these 4 were elderly ladies who were alone in the world, very independent and reserved, and not really fit to live alone. One of these, after persistent " friendly " visits, unbent sufficiently to allow the

Almoner a little insight to her affairs and therefore to be helped to apply for a much-needed supplementary Old Age Pension. A second accepted the services of a part-time home help " just for the floors " having adamantly refused to entertain the idea of a home help while in hospital but realizing when home a week or two that she was not so fit as she thought she was. A third old lady agreed to and then refused a vacancy in Part III accommodation and has eventually settled down nicely in her own cottage with part-time home help. The fourth had able and willing daughters to help at home.

The fifth follow-up case was one of carcinoma of the lung with a poor prognosis ; application has been made to the Old Comrades Association for a small weekly grant to cover extra expenses such as extra nourishment or comforts which cannot be covered by the pension allowed by his firm. Regular visits to ascertain what may be needed are made in this case.

An evicted ante-natal patient was referred by the Institution which had taken her in for help over the housing question ; inquiries were made and it was found the housing authorities already had the case in hand and promised accommodation before the birth of her child.

The most satisfactory case referred during the year came via a Health Visitor who was worried about one of her mothers at the Maternity and Child Welfare Clinic who she was afraid would have a mental breakdown if help was not forthcoming. This woman was found to have a large family of children and was divorced. She was heavily in debt for rent and insurances. She was tired, miserable, and very unwell. At the first interview a plan of action was discussed with her to straighten out her debts, give her a thorough mental and physical rest and to care for the children while this was being done and, most important of all, to give her the necessary stimulus to keep her expenditure within her income in the future. She was sent to a Convalescent Home while the County looked after all but the eldest child. While she was away it was arranged for two Voluntary Societies to cover her debts (about £12 in all). During the weeks following her return the rent and insurances were paid up to date and the National Assistance Board took much trouble in finding ways and means of increasing her allowance by a few shillings per week ; the W.V.S. provided enough clothes to set the family up for the next six months ; the Housing Manager arranged for her to exchange houses in order to remove her from the proximity of unkind neighbours. This woman was profoundly grateful for the moral support the visits gave her during the period when arrangements for her assistance were being made. When the last visit was made six months ago, she had managed to keep entirely clear of debts. Occasional friendly visits will continue to be made.

Cases referred from—		*Help arranged—*	
Hospitals	36	Supervision and advice	42
General Practitioners	26	Financial help	12
Others	12	Holiday Homes	24

Holiday Homes.

One hundred and eighty-nine applications were received for arrangements to be made by the County Council to provide Holiday Home accommodation. 27 applications were rejected as being unsuitable, and of the 162 cases for whom arrangements were made 127 applicants accepted the accommodation and 35 subsequently refused.

The analysis of the 127 completed cases is shown below under the age groups, together with the source of the applications.

0–		1–		5–		15–		45–		65–	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
–	3	9	3	2	1	8	39	12	38	4	8

Source of Applications.

Own Doctor	Hospitals	County Almoners	Others
73	32	7	15

A few adult patients were sent to Holiday Homes selected by the Hospital Almoners or by charitable organizations. For the most part, adults who applied for Holiday Home accommodation direct to the County Health Department were dealt with by the Hertfordshire Convalescent Home, St. Leonards.

St. Leonards was labouring under great difficulties during 1949. Soon after the new Health Service came into being, the Board of the Home recognized that they were dealing with changing times and changing circumstances and that, in the future, they must look largely to statutory bodies for patients, though they made it clear that they wished, if possible, to continue to accept a proportion of patients who were sent under the charitable scheme from which the Home originated.

The Board were fortunate in interesting the King Edward Hospital Fund in the suggestion that the Home should be modernized. The Fund specified the improvements and alterations which would be necessary to bring the Home up to accepted modern standards, and offered to make a substantial contribution towards the cost of the work if their proposals were accepted. The Board unhesitatingly agreed and work on an ambitious series of improvements was begun in 1949.

The Board very wisely decided that it would be unfortunate if the Home were allowed to close down entirely at a time when the Local Health Authorities were making their arrangements for Holiday Home accommodation. The work of the Home was, therefore, arranged in phases which permitted the Home to carry on, though it could use only a proportion of the total beds.

The fact that the Home could not be fully used has, of course, resulted in a relatively high cost per patient per week. When the scheme of alterations has been completed, this Home will certainly be an outstanding one of its kind, and there is every reason to hope that its costs will compare favourably with many Homes which cannot offer the same attractions and facilities.

Medical Loan Depots.

Equipment can be issued on loan to patients being nursed at home and arrangements were completed during the year for the St. John Ambulance Brigade and the British Red Cross Society jointly to act as agents of the County Council in carrying out this part of the County Council's duties under Section 28 of the Act. Loan Depots have been established in the following places :—

Aspenden	Harpenden	Rickmansworth
Baldock	Hatfield	Royston
Barnet	Hemel Hempstead	St. Albans
Berkhamsted	Hertford	Standon
Bishop's Stortford	Hitchin	Stanstead Abbotts
Braughing	Hoddesdon	Stevenage
Bucks Hill	King's Langley	Ware
Buntingford	Knebworth	Welwyn
Chorleywood	Letchworth	Welwyn Garden City
Cottered	Much Hadham	Westmill
East Barnet	New Barnet	

For tuberculous patients special arrangements have been made for the issue of equipment direct from a central store at County Hall.

District Nurses will continue to hold a supply of items which are likely to be required at short notice when access to the Loan Depots is not immediately practicable.

Tuberculosis.

In the National Health Service scheme as it was first drafted, it looked as if the Tuberculosis Services as we knew them in this country were doomed. In the past, the County and County Borough Health Authorities had been responsible for the prevention and treatment of tuberculosis at all stages. The new scheme provided that the Tuberculosis Officer would transfer to the Hospital Board as a Chest Physician and that all treatment would rest with the Hospital Board or with the family doctor. The Local Health Authorities were left with a residual responsibility for the prevention of tuberculosis and for the welfare of the tuberculous person in his own home.

It was pointed out to the Ministry that it was impractical to operate the new scheme because the questions of prevention, diagnosis, and treatment were inextricably linked, and that one person must advise on all three.

As a compromise it was arranged that, while the Chest Physicians should be officers of the Hospital Board, a proportion of their salaries should be paid by the Local Health Authority and that, in return for this payment, the Chest Physicians would advise the Local Health Authority on the prevention of tuberculosis and the supervision of the tuberculous person living in the community. Compromise and dual-control arrangements are seldom completely satisfactory and, so far, this one appears to be running true to type.

In view of the fact that the Chest Physicians are part-time officers of the Health Committee, it was felt that this report might usefully include the observations of the Chest Physicians on their work in this capacity, and the four officers were invited to submit a short report. It will be noted in the extracts from these reports that they are concerned largely with the problem of arranging treatment. This is very understandable, since a Chest Physician is primarily a clinician whose first interest is to see that the patients are properly treated. It remains to be seen whether, when an adequate Tuberculosis Treatment Scheme has been provided, the Chest Physicians will in fact be able to address themselves more definitely to the public health aspects of the tuberculosis problem.

Dr. T. A. W. Edwards, St. Albans Division.

Domiciliary care of tuberculous patients may be considered under two headings :—

(1) The care of these patients beyond the reach of active treatment who are confined to bed, and who can be adequately nursed at home without risk to others. Such cases are few in number. They are under the direct care of their own National Health doctor, and are seen from time to time by the Clinic Physician, Health Visitor, or Almoner. This aspect of the work is much the same as in former years.

(2) The care of those patients awaiting sanatorium treatment. This is really combined domiciliary and clinic treatment. The long waiting period (9–10 months) in this region makes it necessary to carry out certain forms of treatment whilst the patient is resting at home.

Treatments which have been carried out in this way are pneumoperitoneum (with or without phrenic crush), administration of P.A.S., and occasionally of streptomycin.

All patients needing pneumoperitoneum have been admitted to St. Albans City Hospital (Sisters' Unit) for 7–10 days for the induction. Refills are given at the Clinic, the patient being brought by ambulance.

It has not been necessary to do pneumothorax treatment under such conditions, all patients requiring it being admitted to St. Albans City Hospital

for induction and adhesion section and retained until ambulant and ready for discharge.

In general, by a co-ordinated use of domiciliary treatment and hospital beds, some patients have been effectively treated in less time than they would have had to wait for admission to sanatorium.

Dr. A. P. Ford, East Herts Division.

The amount of change in the domiciliary care of the tuberculous since the clinical responsibilities were transferred to the Regional Hospital Board has not been as great in the Hertfordshire areas as was anticipated. This is probably due to the fact that there has been no change in the medical and nursing personnel and also that in Hertfordshire the Tuberculosis Almoners and Health Visitors are employed full time in their speciality, with the result that Case Workers and Chest Physicians are able to work in much closer liaison than is the case in some other areas.

Owing to the long delay in obtaining sanatorium beds, many cases are now being treated in their own homes with the result that the amount of domiciliary visiting is much greater than was previously the case. This increase in domiciliary treatment is also responsible for the greater demand on the ambulance services ; many bed-ridden cases have to be conveyed from their homes to the clinics at weekly or fortnightly intervals for artificial pneumothorax and pneumoperitoneum refills. Other such cases are conveyed to the clinics every two months or so for X-ray examinations. When more beds become available the demand on the ambulance services should not be so great.

Dr. A. G. Hounslow, South Herts Division.

The introduction of chemotherapy has meant that toxæmia has, in many cases, been diminished to such an extent that it has been possible to arrange for most patients on domiciliary treatment to attend at the Clinic for X-ray and examination.

(Dr. Hounslow then expresses his appreciation of the way in which the District Nurses have co-operated by giving streptomycin injections, noting the quite striking results obtained in several cases.)

Another feature has been the use of a few beds at Wellhouse for short-term treatment. Patients have been admitted for a week or ten days for induction of pneumoperitoneum, etc., and have then been brought to the Clinic weekly by ambulance for refills. Such patients in the old days would no doubt have been treated by observation at home while waiting for sanatorium beds. In a few cases, this treatment has successfully removed the need for sanatorium admission, and the patients have been rendered quiescent.

With regard to the real domiciliary case—one who is unable even to travel by ambulance to the Clinic—general medical care remains, of course, the responsibility of the general medical practitioner, the Chest Physician visiting from time to time. I think it is important, however, in such cases that the Health Visitors should visit at least monthly, and that the Almoner should visit from time to time.

No use was made of garden shelters during the past year, but this will be borne in mind this year.

In his report Dr. Hounslow notes that the question of haircuts for the male patients has become a very real problem for the Physician trying to treat patients in the home. Most of these men are strictly confined to bed. Hairdressers will not as a rule call at the house. As a result, the patient is tempted to get out of bed to go to the hairdresser, or to allow the hair to grow to an

uncomfortable length. He suggests that there should be a scheme for a peripatetic barber to visit these patients.

The point may seem a trivial one at first sight, but I believe that it is a very real one to the Chest Physicians. The difficulty is to know how to meet it. If our scheme under Section 28 for the welfare of tuberculous persons is going to include hairdressing, it opens up very considerable new avenues of expenditure, and even a simple scheme which was strictly controlled would be difficult to organize and expensive to run. Furthermore, a scheme could only be justified on the ground that it was an adjuvant to treatment ; and, for this reason, it is conceivable that it would be outside the powers of the Local Health Authority under Section 28.

This problem is quoted as an illustration of the kind of thing which has pre-occupied the medical administrator since the introduction of the new Health Service and has so far clouded over the hopes that, in the new order, we would have more opportunity to apply ourselves to our real task—the study of communal health.

Dr. P. W. Roe, South-West Herts and Dacorum Divisions (Report by Dr. E. G. Dommen).

During 1949 it was difficult to give adequate domiciliary care to tuberculous persons in this district, because Dr. Dommen was the only Chest Physician, and had only one T.B. Health Visitor to assist him. For these reasons, it was impossible to consider instituting a scheme for domiciliary collapse therapy. The appointment of Dr. Roe and of a second Health Visitor early in 1950 should lead to an improvement in the prospect of being able to do something.

The standard of care in tuberculous households could be improved if there was a greater number of Home Helps. This need has been particularly felt since the influx of patients to the L.C.C. Estate began to be really heavy. Many of these patients are women who are confined to their beds and quite incapable of doing any work whatsoever. The Home Help problem is one that remains to be solved.

An increasing use has been made of paramisal sodium in connection with bed rest, particularly for those patients awaiting sanatorium treatment, and the use of streptomycin to be administered by the District Nurse is now in contemplation.

Table 19.

Table giving Notifications of Pulmonary and Non-Pulmonary Tuberculosis.

	1947				1948				1949			
	No. of cases notified			Attack rate per 1,000	No. of cases notified			Attack rate per 1,000	No. of cases notified			Attack rate per 1,000
	M	F	Total		M	F	Total		M	F	Total	
Pulmonary.												
Urban . .	237	151	388	0·92	217	158	375	0·88	200	126	326	0·73
Rural . .	80	43	123	0·82	90	54	144	0·89	60	50	110	0·65
County . .	317	194	511	0·89	307	212	519	0·88	260	176	436	0·73
Non-Pulmonary.												
Urban . .	36	40	76	0·18	25	52	77	0·18	34	28	62	0·14
Rural . .	21	16	37	0·24	20	21	41	0·25	15	17	32	0·19
County . .	57	56	113	0·19	45	73	118	0·20	49	45	94	0·15
Pulmonary and Non-Pulmonary.												
Urban . .	273	191	464	1·10	242	210	452	1·06	234	154	388	0·9
Rural . .	101	59	160	1·07	110	75	185	1·15	75	67	142	0·85
County . .	374	250	624	1·09	352	285	637	1·08	309	221	530	0·88

Table 20.

Death-Rate from Pulmonary Tuberculosis.

(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	Rate
1931–40 (average for ten years).	151	0·45	48	0·37	199	0·43	0·6
1941 . . .	201	0·46	66	0·39	267	0·44	0·5
1942 . . .	163	0·40	59	0·38	222	0·39	0·5
1943 . . .	151	0·38	40	0·27	191	0·35	0·5
1944 . . .	155	0·39	47	0·32	202	0·37	0·4
1945 . . .	141	0·36	33	0·23	174	0·33	0·6
1946 . . .	134	0·33	33	0·23	167	0·30	0·5
1947 . . .	164	0·39	56	0·37	220	0·38	0.5
1948 . . .	146	0·34	35	0·22	181	0·31	0·5
1949 . . .	107	0·25	33	0·20	140	0·23	0·4

Table 21.

Death-Rates from Non-Pulmonary Tuberculosis.

(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	Rate
1941 . . .	42	0·09	19	0·11	61	0·10	0·12
1942 . . .	36	0·09	13	0·08	49	0·09	0·11
1943 . . .	39	0·10	12	0·08	51	0·09	0·10
1944 . . .	33	0·08	11	0·07	44	0·08	0·09
1945 . . .	20	0·05	7	0·05	27	0·05	0·10
1946 . . .	26	0·06	12	0·08	38	0·07	0·08
1947 . . .	19	0·04	6	0·04	25	0·04	0·08
1948 . . .	17	0·04	9	0·06	26	0·04	0·07
1949 . . .	21	0·05	7	0·04	28	0·05	0·05

Mass Radiography Unit.

Report for the Year 1949.

As was mentioned in the report of the County Medical Officer last year this Unit which originally worked solely in Hertfordshire now covers an area embracing all Bedfordshire, the northern part of Middlesex, and that part of Hertfordshire lying within the area of the North-West Metropolitan Regional Hospital Board, and consequently during the year under review the Unit was working in Hertfordshire for only twenty-five weeks. During that time the Unit visited Watford (where the Unit stayed for some three months), Welwyn Garden City, East Barnet, St. Albans, and Leavesden.

Visits were also made to the Mental Hospitals at Napsbury and Leavesden where the X-ray facilities were offered to the staffs as well as examining the patients. In addition the Unit made a two-day visit to Middlesex Colony at the request of the Medical Superintendent to examine a special group. In all, some three thousand patients were examined in these three places but these figures are not included in the tables at the end of the report.

At the beginning of the year the Unit carried out a first repeat visit to a factory—incidentally it was the very first factory in which the Unit ever operated—and it was extremely pleasing to find that the response from the employees showed a considerable increase. Following this the Unit moved to Watford for a second visit—the first visit having been made some eighteen months previously—and here again the response was satisfactory. During the stay at the Watford Town Hall the Unit tried a series of four days given to " Public Sessions "; these were a marked success and the response from housewives almost overwhelmed the resources of the Unit.

The Unit continues to be greatly indebted to the employers whose whole-hearted co-operation makes the working of the scheme possible and particularly to those employers who place accommodation at the disposal of the Unit for the setting up of a centre in which to deal with other smaller firms in the vicinity.

During the year the Unit worked from thirteen different centres in Hertfordshire and X-rayed over 17,000 persons. More detailed results are given below :—

Number of Persons Attending for the Miniature X-ray.

17,163

Numbers recalled for Large Films and Doctor's Interviews showing Subsequent Disposal.

Large Films	Interview with Doctor	Referred to Chest Clinic		Referred to own Doctor
		Herts	Out-County	
594	288	68	41	9

Disposal of New-Discovered Cases referred to Chest Clinics.

	Hertfordshire.	*Out-County.*
Discharged from Clinic—requiring no further action	2	—
Retained under Chest Clinic observation	33	15
Recommended Domiciliary treatment	2	—
Recommended Sanatorium treatment	7	4
Failed to attend Chest Clinic	4	—
Refused treatment	1	—
Referred to Chest Clinics—but no report yet received from the Chest Clinic	19	22

Tuberculosis After Care.

Report of the County Nursing Officer.

Many changes have occurred in domiciliary tuberculosis nursing, but the County Council Nurses continue to work in close liaison with the Chest Physicians, who are employed jointly by the Regional Hospital Boards and the Local Health Authority.

It has been necessary to increase the staff of Tuberculosis Health Visitors from three to five, and there is a likelihood of more staff being required if the work continues to increase.

The following figures show the Nurses' activities in 1948 and 1949 :—

	1948.		*1949.*	
	Attendances at Chest Clinics.	*Visits to Patients.*	*Attendances at Chest Clinics.*	*Visits to Patients.*
Tuberculosis Health Visitors	777	2,638	751	3,061
Health Visitors	138	392	215	688
District Nurses	102	6,151	—	6,460

Almoners' Reports.

During 1949 84 cases were assisted by voluntary sources other than the Red Cross, W.V.S., and British Legion, who together gave help to patients mainly with occupational therapy, clothing, bedding, extra nourishment, and pension applications. The majority of cases helped by those other voluntary sources had financial problems of varying types, some of which point to the gaps which cannot as yet be filled by statutory sources ; for example, a lad now 16½ years old, a member of a very poor standard family, was ineligible for any statutory grant during his illness which began when he was still a schoolboy, until his 16th birthday ; his parents would therefore have had to maintain him for the year following the normal school-leaving age, whereas, had he been fit during that year, he would have been earning ; as it was, not only had he no income, but his illness necessitated extras which could be ill-afforded. He was given free milk (two pints per day) by the County plus a small weekly allowance from a voluntary source until he was eligible to receive a National Assistance Board allowance as from his 16th birthday.

One or two patients in sanatoria far distant from their homes have been helped by voluntary sources with the cost of fares for their visitors who could not otherwise have afforded to visit them.

The next case to be reported briefly is illustrative of the type of patient, well-known to Welfare Officers and Almoners, and upon whom hours of time are spent in interviewing, visiting, letter-writing, telephoning, etc.; this type is unco-operative through ignorance or difficulty of temperament ; their standard of living is pitifully low for similar reasons ; they are in a constant state of needing help and advice if the patient or patients in their families are to carry out to any degree at all the instructions and advice of the Chest Physician.

A family has been known at the chest clinic ever since the father (aged 73 years) was admitted to hospital suffering from active pulmonary tuberculosis and died shortly afterwards. It is a gipsy family who lived in a caravan. When the two youngest children were diagnosed as tuberculous and admitted to hospital, the problems to be dealt with were roughly as follows :—(*a*) to rehouse the family before the children were discharged home ; (*b*) to persuade the family that a house was a better place than a caravan for a family of mother, four children of whom two were tuberculous, and two or three older boys who came and went according to whether or not they were working, " not in the mood to work ", or " in trouble " ! (*c*) to induce the mother to have a National Assistance Allowance to enable her to be at home to care for the children instead of going out to work all day ; (*d*) to help with clothing ; (*e*) to provide milk and extra nourishment for the two tuberculous children ; and (*f*) to furnish the new home and ensure that the two tuberculous children had each a bed and adequate bedding, etc. These problems were all complicated by the fact that the mother could neither read nor write, and that one of the boys (17 years), who would not work, was a constant drag on resources not calculated to maintain him—i.e. the National Assistance allowance. The Housing Manager miraculously provided a house in spite of untold difficulties of housing such a family ; the home was pitifully bare containing only the caravan furniture plus separate beds and bedding provided by the National Assistance Board for the two tuberculous children. The National Assistance Board also helped to the maximum of their powers with clothing and other essential furniture. Two voluntary sources gave grants to provide curtaining, floor coverings, and one or two other items ; the W.V.S. gave clothing ; and the milk retailer co-operated over the question of provision and renewal of free milk vouchers in view of the mother's illiteracy. The result so far is that one child is very well and now at school, but attending the Chest Clinic regularly when told to do so, but the other T.B. child is not so well. The question of long-term convalescence may arise again as it did when it was feared the children might return

home before a house could be provided ; the battle to persuade the mother to allow the child to go away will again be on. But she has lost her suspiciousness of the doctor, nurse, and almoner whom at first she regarded only as monsters wishing to take away her children from her and interfere in her life. She now co-operates to the best of her very limited ability and seems to regard the staff as friends and not foes.

An ever-increasing problem is that of resettlement ; the only statutory provision for the rehabilitation of the tuberculous is the Ministry of Labour scheme for the disabled which includes training courses and resettlement grants dealt with by Disablement Rehabilitation Officers who give special attention to the employment problems of the disabled. Patients whose condition is quiescent are accepted for training and several have embarked upon courses in clock and watch repairing, radio-mechanics, typewriter repairing, and electrical engineering. Unfortunately training courses become full, thus necessitating long waiting periods (six or eight months at present) for vacancies during which it is difficult to prevent patients from accepting unsuitable jobs, particularly blind-alley jobs in the case of young fellows of 18–20 years for whom it is of the utmost importance to equip themselves to earn a good wage in a job with good prospects in order that their standard of living shall, when they become family men, be secure enough *not* to create yet another tuberculosis-ridden family whose income is not enough to provide resistance to the germ.

The more intellectual patient, however, is in the better position of being able to enjoy a correspondence course during or after his treatment in some subject which may help him towards a suitable livelihood which has the possibility of being carried on at home. There are two patients at present who are taking such courses in journalism as arranged and financed by the British Council for Rehabilitation. Both are army pensioners and have been provided with typewriters and books by the Red Cross ; both are now earning a few shillings for articles or stories accepted for publication ; neither would be yet fit for work in any other capacity ; they are both absorbed in this work which as well as giving them congenial occupation, is a remunerative objective. Another boy is doing part-time colony work and at the same time studying for London Matriculation with a view to a better job in the future. Several other patients are just beginning courses in accountancy, insurance, and salesmanship, while still under treatment, in the hope of qualifying themselves for jobs suitable to their condition later on.

However, the large majority of sputum + chronics, unacceptable for Ministry of Labour Training Courses, and with no particular interest or ability in any direction, and who are used to heavy manual work, can find no answer to their resettlement problems ; only the few who can be absorbed into colony work or other work amongst the tuberculous. The result is that many of these chronics are driven to taking unsuitable work either because they can bear idleness no longer or because the strain of making ends meet on a National Assistance allowance can no longer be endured. The almost inevitable breakdown in health with its vicious circle of return to inactivity and to National Assistance allowances follows with harmful psychological effect.

In connection with resettlement in 1949, two interesting cases should be mentioned : one man who became quiescent and obtained a job as a commercial traveller was found to be doing his work on foot and by public transport ; he was thus rendering a job, suitable to his condition, totally unsuitable by tedious travelling. He was referred to the British Red Cross Society who provided him with a car partly by means of a grant and partly by a loan repayable on suitable terms with the security of being relieved of repayment should he fall ill again. On similar terms a small van was provided by the British Red Cross Society to another patient whose condition only just allows him to keep going in the small business he runs with the help of his wife ; he needed transport between home and shop as he had a long walk in a hilly district four times per day ; the business had grown to benefit a delivery service. Needless to say in both these

cases, the Red Cross gave extremely costly assistance, the ultimate granting of which required months of patient negotiations.

The increased facilities for boarding-out of children from tuberculous households have been of considerable value as an inducement to remove children from contact with tuberculosis, or more frequently, make it more possible for the mother, if she is the patient, to rest at home. Friends and relations will often step forward to offer to take children at the time of diagnosis, but after a few weeks without financial help, the arrangement equally often breaks down. The parents make a generous offer as the foster-parents feel some payment is due, only to find that with the added expense of illness, they can ill-afford it, so that the only alternative is to have the children home. The payment of a boarding-out allowance from the beginning helps to put the arrangement on a more permanent footing.

For those children for whom no foster homes are available, the use of County Residential Nurseries as an alternative can assist considerably in the problem of persuading a patient to undergo treatment. A typical example of this is the case of a mother with active tuberculosis, a baby a few weeks old, and three other children under ten. Recommended for an immediate sanatorium vacancy she felt that she could not leave her home and the children to rather vague offers of help from neighbours. Having refused one vacancy and appearing to be both unco-operative and obstructive to any alternative plans, she was finally persuaded to allow the baby and youngest child to go to a residential nursery. The two elder children were then sent to relatives away, and she accepted a bed in a sanatorium. Once in hospital, she was relieved and extremely grateful for the arrangements for the children. She proved herself to be a very co-operative patient and made excellent progress.

Within the County there are some rapidly developing areas which from the tuberculosis aspect have their own particular problems. The L.C.C. Estate at Carpenders Park has a very high proportion of T.B. cases since these are usually the families with a high priority for rehousing. Wherever they are living, a household with at least one tuberculous adult member usually finds it a difficult task to budget on the reduced income that comes hand in hand with a long-term illness, but this is especially marked on such an estate, where they find the cost of living higher than that to which they are accustomed. A number of households, too, have taken on hire purchase agreements, since they are setting up homes for the first time. This liability in addition to removal expenses, absorbs what savings they possess, so that there is seldom any reserve, if indeed there is no actual debt, to tide them over a long period of ill-health. In some cases where the tuberculous patient was already in receipt of an allowance from the National Assistance Board, the Area Officer has given financial help over removals and sometimes assisted in the provision of essential furniture. Other cases, not within the scope of the National Assistance Board, have been assisted by voluntary sources, such as the British Red Cross Society, the Glasspool Trust, and the British Legion, etc.

As more and more L.C.C. cases have been rehoused, the home help problem has become more acute. Many tuberculous patients, actually on complete bed-rest at the time of their move to the new house, immediately require home help, often of a full-time nature. Complete newcomers to the area themselves, they know no one who can help and all possible sources have to be tapped to discover fresh volunteers to act as home helps in tuberculous households.

On the whole, there appears to have been an expansion of the after-care services for the patient, newly diagnosed, and undergoing treatment. Facilities for patients at this stage of their illness, in the form of home help arrangements, care of the children, medical comforts, etc., have increased. It is for the chronic patient, and for the patient who has completed his treatment and is able to

take his place as a worker again, that there appears to be a need for more assistance, both in establishing the latter in suitable employment, and providing the former with some means of earning and at the same time giving him some interest in the form of home industry or sheltered employment.

Report of the Almoner for the South-West Herts Division.

The rapidly increasing population of the L.C.C. Estate at Oxhey has provided many problems of considerable interest and difficulty during the period under review and is likely to continue to do so for some time. A number of the families are typical families with many needs so often found in large urban areas. The difficulties arise because the many sources of help, again so often found in large centres of population, apart from health services and statutory help, are not available. This state of affairs naturally places an added strain on all available services, both voluntary and statutory, in the Division. Particularly has the Almoner noticed this with regard to T.B. families, of which there have been a considerable number transferred from London during the year. These families have specially required such services as Home Helps, ambulance service, voluntary aid for provision of clothing, free school meals, to mention only the most routine needs.

The following case is quoted as an illustration of the needs of some rehoused families, and underlines the danger of help being over-generous to the ultimate detriment of the recipients.

In October the Almoner was informed by a North London Chest Clinic that a T.B. patient and his wife were to be rehoused on the Oxhey Estate within two days, the patient coming direct from hospital as a bed patient. Apart from cooking utensils and crockery the couple had no furniture whatever. The Almoner of the London Chest Clinic had, however, quickly sought the help of likely voluntary services and had managed to obtain a grant from the Glasspool Trust, sufficient to purchase two iron bedsteads and mattresses—blankets had also been given. Arising out of a discussion between the two Almoners it seemed clear that further help from other voluntary sources was unlikely, and in fact not to be expected, in view of the responsibilities of the National Assistance Board for such cases. The National Assistance Area Officer, realizing that a fairly large grant would be required, was unwilling to commit himself and wished first to approach local voluntary sources of help on his own initiative. For a time the entire situation seemed to be in a state of flux and the Almoner found herself in the position of arbiter between the statutory body and the voluntary organizations. At last, the National Assistance Board agreed to make a grant of £16 for linoleum, curtaining, a table, and two chairs (later this was supplemented by a grant for extra sheets for the patient), but not before too many visitors had descended upon the patient and his wife.

Difficult though this case proved to be at the time it has had certain beneficial results in pointing the beginning and end of voluntary and statutory help.

The Almoner has been fortunate in having an office in the Divisional Health department at the Town Hall, thus bringing her into close touch with other branches of the local health services and activities, and the resultant co-operation has added much to what is hoped will prove a constructive basis to the work of a County Almoner.

The new premises of the Chest Clinic which came into use in July has also provided an office for the Almoner where she can be during Clinic Sessions, thus enabling her to be readily accessible to Chest Physician and patients and to keep in touch with those patients who have previously been referred to her.

SUMMARY OF TUBERCULOUS CASES INVESTIGATED BY ALMONERS.

Cases Requiring—		*Assistance Obtained Through—*	
Financial help	258	Ministry of Pensions	25
Fares and Transport	33	Ministry of National Insurance	28
Extra nourishment	136	Ministry of Labour	21
Bedding	80	National Assistance Board	268
Clothing	126	Hospital Management Committees	32
Housing	38	Health Committee	202
Occupational Therapy	89	Committee for the Care of Children	57
Resettlement	24	British Red Cross Society	187
Care of Children	70	Women's Voluntary Services	54
Domestic Help	78	Other sources	84
Miscellaneous	48		

MENTAL AFTER-CARE.

The number of cases referred for this type of care is small and there is not always much constructive help required other than service as a listener and safety valve for grievances—but some social problems do arise and can be dealt with. Intensive work was undertaken on seven cases, the remainder requiring no more than periodic supervision, and were sufficiently reinstated in normal life through their own or their family's efforts to require no material help. Despite the small numbers, however, this service proves to be sufficiently time-absorbing and essential. At the time of writing, three cases have been referred back for further treatment and are considered no longer suitable for community care.

ALMONER'S WORK—MENTAL AFTER-CARE.

Cases referred by—	
Mental Hospitals within the County	8
Mental Hospitals outside the County	11
Ministry of Pensions	4
General Practitioners	3
Helped by—	
Employment or training	6
Financial help arranged	4
Convalescence	1
Surgical appliances and spectacles	4
Visits paid by Almoners	53

VENEREAL DISEASES.

Female Clinics.

During the year a total of 331 new patients have attended the three women's Clinics in the County at which an Almoner attends. This figure includes 46 new cases of syphilis, 10 cases of gonorrhœa, and 275 non-venereal cases. Altogether a total of 2,835 attendances have been made.

Work in connection with the follow-up of defaulters has involved a total of 153 visits paid and 267 letters sent. Seventy-nine women contacts have been persuaded to attend for treatment.

Male Clinics.

During the year one of the Almoners was given extended leave of absence, and arrangements were made to provide a locum to carry on her work. It so happened that the choice fell on a Male Almoner—an innovation in this service.

For some years past a considerable amount of the Almoners' work has been associated with the V.D. Clinics, where the Almoners were able to receive new cases, discuss the circumstances in which they contracted the disease and, in the process, acquire information which enabled them to trace the source of infection and ultimately, in many cases, to arrange for the source to report for treatment at a Clinic.

With an exclusively female almoning staff, this could be done only at the Female Clinics. An experiment was made in one instance, whereby the Almoner was available in her office while the Male Clinics were in session, so that men could visit her, discuss any problems, and get advice. This experiment proved to be of limited value.

The appointment of a Male Almoner offered an opportunity for studying the scope for almoning at a male V.D. Clinic. The Medical Officer-in-Charge felt that it would be an unwelcome innovation to set up a formal almoning service at the Clinic. Mr. Lockhart, the Male Almoner, solved this problem by offering to work nominally as a Male Orderly at the Clinic, and of using the opportunities which these duties afforded for studying the scope for his true function.

Mr. Lockhart reported as follows :—

It has been possible to form an opinion of the opportunities there would be of doing useful work, particularly if the routine arrangements were altered somewhat. For instance, in the Female Clinic at St. Albans the patients give in their number to the almoner before seeing the doctor. This would give the almoner an opportunity of getting in touch with patients.

Other ways in which the almoner could, I feel, assist are as follows :—

1. Obtaining information from the patients about the source of infection, and about contacts—matters which the doctor may not have time at his disposal to deal with fully.
2. Persuading defaulters to attend—either by writing or visits—some success has already been had with visits.
3. Co-operating with the almoner of the female clinics in tracing contacts.
4. Giving time to making good contact with the patients, especially new cases, and encouraging them in regular attendance.

My experience has been that new patients are very willing—sometimes anxious—to discuss matters and I consider that it would be possible for the almoner to obtain much useful information without arousing the patient's resentment.

SECTION 29—HOME AND DOMESTIC HELP.

During 1949 a new scheme was brought into operation in Stevenage so that, at the end of the year, there were 19 local services operating. There was a rapidly increasing demand and, in consequence, the service expanded greatly. Comparative figures for the past three years are shown in the table which follows :—

HOME HELPS
AT 31ST DECEMBER.

	No. of Schemes.	*Whole-Time.*	*Half-Time.*	*Casual.*	*Cases. Helped.*	*Hours Worked.*
1947 .	10	26	—	—	357	20,026
1948 .	18	66	92	45	1,954	126,970
1949 .	19	110	129	113	2,561	339,099

It will be noted that the increase, both in staff and hours worked, appears much greater in proportion to the cases helped. This is largely because, during 1949, the service was faced with two new and very serious problems—the care of aged and infirm persons, and that of tuberculous patients undergoing domiciliary treatment while awaiting admission to or after discharge from a sanatorium. These two classes of patient require very many hours of service, and so the average number of hours worked per case helped is rising steeply.

The following table shows the distribution of Home Helps employed in the various areas of the County :—

Division	Districts	Whole-time Equivalents of Home Helps Employed	
		Jan., 1949	Dec., 1949
Dacorum . .	Hemel Hempstead .	4	14·1
	Berkhamsted . .	1 } 8	
	Tring . . .	3	
East Herts . .	Hertford . . .	11	82·1
	Bishop's Stortford .	4 } 32	
	Cheshunt . . .	17	
St. Albans . .	St. Albans . .	7	25·3
	Harpenden . .	4 } 16	
	Boreham Wood .	5	
South-West Herts .	Watford . . .	25 } 36	55·0
	Rickmansworth .	11	
North Herts . .	Hitchin . . .	4	20·1
	Letchworth } . .	5 } 12	
	Stevenage }		
	Royston . . .	3	
South Herts . .	East Barnet . .	10 } 19	30·3
	Barnet . . .	9	
Mid Herts . .	Hatfield . . .	5 } 17	23·9
	Welwyn Garden City .	12	
		140	250·8

All local organizers were, by the end of the year, paid officers of the County Council, and the administrative staff was as follows :—

1 Central Organizer.
1 Divisional Organizer.
1 Assistant Divisional Organizer (vacant).
14 Part-time Local Organizers.
1 Case Worker.
1 Clerical Assistant.
1 Health Visitor, devoting one-third of her time to the Service.

Staffing.—Recruitment of Home Helps during 1949 was, in most districts, easier than in the previous year, so that it was possible to be more selective in the choice of persons appointed. In some areas a waiting list was formed of women wishing to become Home Helps as vacancies arose. Recruitment was largely by means of advertisements in local newspapers, and the Ministry of Labour's exemption certificates were renewed at intervals during the year.

Women wishing to apply for engagement as Home Helps were interviewed by District Voluntary Committees before appointment.

Organization.—During the previous year it had become evident that its rapid growth had put the service under increasing strain. The organization of affairs through small and independent local offices could no longer proceed without extra staff and, in addition, the lack of a full-time County Organizer became increasingly felt. As the year progressed the strain on the machinery grew so that it became necessary for the Health Committee to appoint a special Sub-Committee, charged with the duty of reviewing the existing organization and staffing of the scheme, and of making recommendations as to the future administration. As a result of the report made by the Sub-Committee following its detailed investigations, the Health Committee, in June, 1949, agreed :—

(*a*) To expand the service during the financial year 1949–50 to the equivalent of 300 full-time Home Helps, and later—as might prove necessary—by stages to a maximum figure of 500 whole-time Home Helps.

(*b*) To proceed, as opportunity arose, with the plans for divisional organization of the service, which had already been incorporated in the proposals made under Section 29 of the National Health Service Act, and approved by the Minister of Health.

(*c*) To appoint a County Organizer.

The plans for divisional organization were laid with the intention of relieving local Organizers as much as possible of detailed clerical work, so as to leave them more time for the actual supervision of the work of the Home Helps and for the visitation of householders. In consultation with the Clerk of the County Council and the County Treasurer, the internal procedure was overhauled, so that the presentation of accounts and returns was simplified. As from 1st October, 1949, the payment of wages was undertaken by the County Treasurer.

The first Divisional Organizer to be appointed took up her duties in the South-West Herts Division in May, 1949, acting as Organizer for the Borough and Rural District of Watford, the Urban District of Bushey, and the L.C.C. Estate at Oxhey, and as Supervisor of the Rickmansworth service. A full-time clerical assistant was also appointed for the area.

Finance.—The Health Committee decided to adopt, as from the 1st April, 1949, a modified form of the Assessment Scale " B " which had been suggested by the County Councils Association. The introduction of this scale, even in modified form, however, gave rise in practice to great difficulties, and numerous appeals and complaints were received from members of the public. The operation of the scale was, therefore, reviewed, and further modifications (after approval by the County Council) were introduced on the 21st July. These gave :

(1) Increased allowances for adult dependents and children.

(2) Graduated reduction of the charges made in long-term illness, while retaining the basic principles of assessment according to available income, rather than to the amount of use made of the service.

The standard full charge was raised to 2*s*. 3*d*. per hour, and a meal allowance of one shilling was authorized to be paid to Home Helps in certain circumstances at the discretion of the local Organizer.

Tuberculosis.—There were 244 cases of this class. Patients being treated at home for tuberculosis account for much of the greater demand upon the service. Home Help may be given to the household both before and after the admission of a patient to a sanatorium and, in most cases, the benefit to the family and to the patient is a very real one.

Recruitment, however, of women for work in infected households proceeds slowly, and the difficulty is mainly due to fear as to what may be the result of contact with a sufferer from this disease. Home Helps engaged on such work are all volunteers, and young women or mothers of young children are debarred from taking on this branch of the work.

Home Helps have been given the opportunity of having X-ray examinations, and have been suitably advised as to the precautions which they should take when working in contact with infection. By signed permission of the householder, the nature of the case is disclosed to the Home Help concerned, so that she is left in no doubt as to the facts of the situation.

In a few instances authority was given for the employment of relatives to attend tuberculous persons when no other help could be provided.

Maternity Cases.—Home Helps were booked for maternity cases well in advance. Most Home Helps working on this type of case were kept fully occupied, and were not often transferred to other kinds of work. 490 maternity cases were attended during the year.

Other Cases.—During the year 1,827 other cases were assisted. This group includes domestic help given to households in the following circumstances—accidents, acute illness of mother (at home or in hospital), chronic illness and old age pensioners.

Social Welfare.—Many local Organizers and Voluntary Committees arranged Christmas parties and socials—some for the Home Helps only, and some for their families too.

The South-West Herts Division arranged two day trips to the seaside—one to Clacton in May and one to Bognor in September. Both were very successful, and were followed up at Christmas by a children's party and a theatre party preceded by dinner in London.

These and similar social activities have helped to promote the " esprit de corps " and the sense of service which it is desired to foster.

The issue of uniforms and the provision of training courses would be a further step in this direction, but these desirable developments must await a more favourable time when financial considerations will allow of their introduction into the scheme.

SECTION 51—MENTAL HEALTH SERVICES.

Mental Deficiency Acts (1913–1938).

The official return to the Board of Control for the year 1949 was as follows :—

		M.	*F.*	*Total.*
I. Particulars of Mental Defectives as on 1st January, 1950.				
(1) Number of Ascertained Mental Defectives found to be " Subject to be dealt with " :—				
(*a*) In Institutions (including cases on licence therefrom)	Under 16 years of age	79	49	128
	Aged 16 years and over	307	287	594
(*b*) *Under Guardianship (including cases on licence therefrom)	Under 16 years of age	2	1	3
	Aged 16 years and over	13	34	47
(*c*) In " places of safety "		5	6	11
(*d*) Under Statutory Supervision (excluding cases on licence)	Under 16 years of age	81	75	156
	Aged 16 years and over	65	53	118
(*e*) †Action not yet taken under any one of the above headings		—	—	—
Total ascertained cases found to be " subject to be dealt with "		552	505	1,057

	M.	*F.*	*Tl.*			
No. of cases included in (b) to (e) above awaiting removal to an Institution	40	38	78	—	—	—
‡(2) Number of Mental Defectives not at present " Subject to be dealt with " but over whom some form of voluntary supervision is maintained :—						
Under 16 years of age				2	2	4
Aged 16 years and over				19	19	38
Total number of mental defectives (1) plus (2)				573	526	1,099
(3) Number of Mental Defectives receiving training :—						
(*a*) In day-training centres			Under 16 years of age	41	32	73
			Aged 16 years and over	—	6	6
(*b*) At home				—	—	—
Total				41	38	79
II. Particulars of Cases reported during the year 1949 :—						
(1) Ascertainment.						
(*a*) Cases reported by Local Education Authorities (Section 57, Education Act, 1944) :—						
(i) Under Section 57 (3)				23	21	44
(ii) Under Section 57 (5) :—						
On leaving special schools				1	5	6
On leaving ordinary schools				3	2	5
(*b*) Other ascertained defectives reported during 1949 and found to be " subject to be dealt with "				14	13	27
Total ascertained defectives found to be " subject to be dealt with " during the year				41	41	82

	M.	*F.*	*Total.*
(*c*) Other reported cases ascertained during 1949 who are not at present " subject to be dealt with " . . .	7	2	9
Total number of cases reported during the year . .	48	43	91
(2) Disposal of cases reported during the year			
(*a*) *Ascertained defectives found to be " subject to be dealt with "*			
(i) Admitted to Institutions	6	3	9
(ii) Placed under Guardianship	1	2	3
(iii) Taken to " places of safety "	1	—	1
(iv) Placed under Statutory Supervision . . .	33	35	68
(v) Died or removed from area	—	1	1
(vi) Action not yet taken	—	—	—
Total ascertained defectives found to be " subject to be dealt with "	41	41	82
(*b*) *Cases not at present subject to be dealt with—*			
(i) Placed under Voluntary Supervision . .	7	1	8
(ii) Later found not to be defective . . .	—	—	—
(iii) Died or removed from area	—	—	—
(iv) Action unnecessary	—	—	—
(v) Action not yet taken	—	1	1
Total cases not at present " subject to be dealt with " .	48	43	91
III. Number of Mental Defectives in Institutions under Community Care, including Voluntary Supervision or in " Places of Safety " on 1st January, 1949, who have ceased to be under any of these forms of care during 1949.			
(*a*) Ceased to be under care	—	—	—
(*b*) Died, removed from area, or lost sight of . . .	8	9	17
Total	8	9	17

IV. Of the total number of Mental Defectives known to the Local Health Authority.			
(*a*) Number who have given birth to children during 1949 :—			
(i) After marriage			1
(ii) While unmarried			2
(*b*) Number who have married during 1949 . . .	1	2	3

* Number of the defectives under Guardianship who were dealt with under the provisions of Section 8 or 9 : M., 2 ; F., —.

† The numbers returned under this heading (1) (*e*) are those still regarded as " subject to be dealt with ", irrespective of the date at which they were " reported " or " ascertained ", and do NOT include any cases which have been returned under any one of the preceding headings.

‡ All cases reported to the Local Health Authority and recognized as mental defective with whom some form of contact is maintained are included.

1,629 domiciliary visits were made by the Social Workers during the year. In addition the Organizer for the Occupation Centres paid routine visits to all new cases referred for admission to these Centres. Visits by the Social Workers were mainly to mental defectives under community care. Some visits were made on behalf of Institutions to supervise cases on Licence and for preliminary inquiries to be made where Licence was being considered. Home conditions reports were also provided for the information of the Visiting Justices when considering the renewal of Orders under Section 11 of the Mental Deficiency Act, 1913.

Details shown in the report to the Board of Control only give the disposal of cases first reported during 1949. The following information covers all actions taken by the Local Health Authority whereby Orders under the Mental Deficiency Acts for the detention of mental defectives, were obtained during the year.

Orders obtained on presentation of Petitions . .	17 Hertfordshire patients detained in Institutions. 4 Hertfordshire patients placed under Guardianship. 4 Out-County patients detained in Institutions.	
Varying Orders . . .	4 were obtained.	
Court Orders sending patients to Institutions.	3 were made.	The Social Workers attended the Courts when cases subject to be dealt with under the Mental Deficiency Acts were due to appear.
Court Orders placing patients under Guardianship.	2 were made.	
Court Orders made under Section 15 of the Mental Deficiency Act, 1913.	2 were made committing patients to Institutions as to a " place of safety " pending the presentation of a Petition.	

The position with regard to accommodation in certified institutions, has steadily deteriorated since 5th July, 1948, when there were sixty names on the colony waiting list. At the end of 1949 this waiting list had grown to seventy-eight. The County of Hertfordshire has, since the Appointed Day, been divided between the areas of the North-East Metropolitan, the North-West Metropolitan, and the East Anglian Regional Hospital Boards.

Representations were made to the North-East Metropolitan Regional Hospital Board in November, 1949, as only six Hertfordshire patients had been offered accommodation by the Board since the Appointed Day, viz. one patient admitted to a certified institution and five to Homes with which the Board have contractural arrangements. The reply received from the Hospital Board stated that authority had been received to carry out the planning work for a permanent extension to provide 230 more beds at South Ockendon Colony and it was hoped that the capital building work would commence in the very near future, whilst also arrangements for the provision of additional accommodation for about thirty-five low-grade patients were almost completed at the Leytonstone House branch of South Ockendon Colony.

The urgent need for additional accommodation in certified institutions is the most disheartening aspect of mental deficiency work and it is to be hoped that it will rank for high priority in the capital building programme of the Hospital Services. The harmful effect on family life of the presence of low-grade defectives cannot be stressed too highly, and presents a most difficult problem for the Social Workers carrying out domiciliary visiting, when faced with obvious cases where admission to an Institution is the only proper solution, but vacancies are not available.

The Health Committee have, however, proceeded with the policy of extending the facilities for the training of mental defectives in Day Occupation Centres and the following report by the Organizer of these Centres for the County, illustrates the progress already made.

Occupation Centres.

The Day Occupation Centres offer a temporary solution for the mentally defective children excluded from school under Section 57 (3) of the Education Act, 1944. The ages of children admitted range from 5–16 years, although, unless there is a waiting list of younger children, it is not necessary to exclude a child when it reaches the age of sixteen years, as these children mature bodily, but mentally remain at the level of a young child. The children are taught habit-, sense-, physical-, and speech-training, handwork, music and movement, story-telling, training in simple domestic tasks and table manners, with provision for periods of free play and of rest and relaxation. Academic subjects are not taught.

One of the chief difficulties to overcome is that of transport. In a rural county like Hertfordshire, it has not been practicable to open one large Centre as some Authorities do, but to provide smaller Centres at strategic points. It is hoped that there will be seven Centres eventually and also Training Centres to provide for the older adolescents, who require crafts such as carpentry, boot

repairing, gardening, and more advanced domestic subjects than those taught in the Occupation Centres.

On the 1st January, 1949, the Hertford and Watford Occupation Centres were operating full-time, from Mondays to Fridays, 9.30 a.m. to 3.30 p.m. The Hertford Centre was divided into a Senior and Junior class—Seniors attending Mondays, Wednesday, and Fridays—Juniors on Tuesdays and Thursdays.

The Barnet Centre was situated in East Barnet and was open on Mondays and Wednesdays all day, and Friday from 10 a.m. to 12 noon only.

The Hitchin Centre was also part-time, being open on three days a week.

At this time there were, in all, 51 children attending Centres, One ambulance covered the New Southgate–Barnet route and one covered the Rickmansworth–Watford route.

In May, 1949, Mrs. R. M. Blake resigned to take up an appointment with the National Association of Mental Health. In June, 1949, Mrs. P. E. Rock was appointed as Occupation Centres Organizer.

In June, other premises were found in High Barnet, enabling the Barnet Centre to open full-time.

In September, upon the resignation of the previous part-time Supervisor, a new trained Supervisor was appointed for the Hitchin Occupation Centre and it was reopened as a full-time Centre. Also, negotiations were completed between the Hertfordshire County Council and the Cell Barnes and Middlesex Colony Hospital Management Committee, for not less than ten children to be admitted to the Cell Barnes School as day pupils and this Centre opened in September with twelve pupils from Hatfield and St. Albans districts. The Hatfield children were transferred from Hertford to St. Albans and the Hertford Centre was opened full-time for all the children attending.

By December, 1949, there were 81 children attending the five full-time Occupation Centres. Of these, 21 were conveyed by ambulance, 17 by taxi, and the rest by public transport, their fares being reimbursed.

Lunacy and Mental Treatment Acts.—Procedure.

The principal enactments concerning persons of unsound mind are the Lunacy Acts of 1890 and 1891, and the Mental Treatment Act of 1930 under which, up to July, 1948, the main duty of arranging for certification and removal of patients lay with the Relieving Officer. The National Health Service Act of 1946, however, brought Mental Health Services as a unified whole within the scope of the general health service and substituted " duly authorized officers " for the former Relieving Officers who disappeared with the passing of the National Assistance Act, 1948. The law affecting mental health services has not suffered many other changes. In Hertfordshire the Duly Authorized Officers of the Health Committee also hold appointments under the Welfare Committee as Divisional Welfare Officers or their Assistants. Each administrative Division of the County has two or more Duly Authorized Officers and in addition the County Council's two female Mental Health Social Workers have been appointed as Duly Authorized Officers. As an introduction to the report of Mr. W. H. Finch, the Senior Authorized Officer, a short explanation has been given of the categories of patients who may become subject to be dealt with on account of mental illness, and of the ways in which the Duly Authorized Officers assist in obtaining hospital treatment or observation whether acting on their own responsibility or in concert with other persons such as magistrates, relatives, or medical practitioners.

Voluntary Treatment—Mental Treatment Act, 1930 : Section 1.

A patient who can express his wish to undergo mental treatment voluntarily may apply in writing to the medical superintendent of a mental hospital, or other place approved for the purpose by the Ministry of Health. No medical

certificates are required unless the patient is under sixteen years of age, when written application may be made by the parent or guardian, accompanied by the recommendation of one registered medical practitioner who must be either the usual medical attendant of the patient, or a practitioner approved by the Board of Control or the Local Health Authority within whose area the patient then is. The Duly Authorized Officers are therefore not responsible either for initiating or for completing action under this Section. They do, however, advise doctors or patients, when called upon to do so, as to the procedure, and assist in any way possible. The patient once received for voluntary treatment can take his discharge at any time by giving 72 hours notice. Notice is given by the parent or guardian of patients under the age of sixteen years.

Temporary Patients—Mental Treatment Act, 1930 : Section 5.

An application for temporary treatment without certification may be made by the husband, wife, or relative of the patient, or one of these persons may request the Duly Authorized Officer to make the application to the person having charge of the premises into which the patient is to be received. Two medical recommendations are necessary ; one of these must be made by a specially approved medical practitioner who shall not be the patient's usual medical attendant, and the other by the patient's usual medical practitioner. Under this procedure it is permissible for the doctors to examine the patient separately, or acting together. A patient dealt with under this Section must be incapable at the time of expressing willingness to undergo treatment ; he must be suffering from mental illness and likely to benefit from temporary treatment. The period of temporary detention is not to exceed six months, but in certain circumstances this period may be extended.

Urgency Orders—Lunacy Act, 1890 : Section 11 as amended.

In urgent cases where it is expedient either

(*a*) for the welfare of a person alleged to be of unsound mind, or

(*b*) for the public safety, that a person should be placed under care and control,

the husband, wife, or relative of a patient may sign an Urgency Order. This may be signed before or after the one medical certificate which is required. An Urgency Order remains in force for seven days from its date, or until any petition for a reception order which may be pending is disposed of finally. A Duly Authorized Officer must sign the Urgency Order unless the patient is to be treated as a private patient.

Observation Cases—Lunacy Act, 1890 : Section 20.

Where necessary, a constable or Duly Authorized Officer may remove a person to a hospital (or a part thereof) designated by the Minister of Health for the purposes of Section 20 of the Lunacy Act, 1890. No medical certificate is necessary and action under this Section is only taken when for the public safety or for the welfare of the person alleged to be of unsound mind, he/she should be placed under proper care and control. The patient may be detained in hospital for a period not exceeding three days, and must then be released or otherwise dealt with unless a Justice has meanwhile made an Order, or unless the Medical Officer of the hospital certifies that the patient is of unsound mind and that it is expedient that he/she should be detained for a further period of not exceeding fourteen days.

Reception Orders, etc.

If the condition of a patient permits, and it is not necessary to operate one of the foregoing methods, the case can be dealt with by a Judicial Authority or a Justice on the active list, in accordance with procedures laid down in certain sections of the Lunacy Act, 1890. These procedures cover—

(i) Reception Orders on petition of a husband or wife or relative. (Lunacy Act : Sections 4 and 5.)
(ii) Summary Reception Orders. (Lunacy Act : Sections 14 and 16).
(iii) Persons wandering at large. (Lunacy Act : Sections 15 and 16.)

The Duly Authorized Officer has powers to initiate action in respect of persons to be dealt with under headings (ii) and (iii), but has no powers or responsibility under (i). One or more medical certificates are required under these procedures. The Duly Authorized Officer customarily prepares the necessary documents.

Report of Senior Authorized Officer.

During the year ended 31st December, 1949, cases as follows were dealt with. The Divisional Welfare Officers for the purposes of the National Assistance Act in the seven areas of the County continued to act as " Authorized Officers " for the purposes of the Lunacy and Mental Treatment Acts as amended by the National Health Service Acts, 1946 and 1949, and the administrative arrangements in this connection worked smoothly during the year. Generally speaking, cases arising in that part of the County within the North-East Metropolitan Region are dealt with at Claybury Mental Hospital, those from the Northern part of the County in the North-West Metropolitan Region at the Three Counties Hospital, those from the southern part of the County in the North-West Metropolitan Region at either Napsbury or St. Bernard's Hospitals, and those from the small portion of the County in the East Anglian Region at the Fulbourn Hospital :—

	Men.	*Women.*	*Children.*	*Total.*
(1) *Reception Orders.*				
Admitted direct to hospital	57	80	—	137
Admitted to hospital after " observation " under Sections 20/21	47	101	2	150
By action subsequent to making of Urgency Order, or admitted to hospital under Orders made on Petition	4	4	—	8
(2) *Voluntary Patients.*				
Admitted direct to hospital*	17	27	—	44
Admitted to hospital after " observation " under Sections 20/21	22	27	—	49
By action subsequent to making of Urgency Order	4	2	—	6
(3) *Temporary Patients.*				
Admitted direct to hospital	2	20	—	22
(4) *Urgency Orders*	21	6	—	27
(5) *" Observation " Cases.*				
Patients admitted to " Observation " Wards under Sections 20/21 (including those above who were subsequently admitted to mental hospital)	96	198	6	300
(6) *Persons recommended for Clinical Treatment* and other persons advised by the Authorized Officers*	59	69	2	130
Totals	329	534	10	873

The number of individual patients included in the above statistics was 244 men, 390 women, 8 children : total 642.

* These figures do not include those persons who may have been dealt with otherwise than by reference to the " Authorized Officers ".

In addition to the above figures, Reception Orders in respect of 16 men and 41 women originally admitted from outside the County of Hertford to mental hospitals in the County under Temporary or Urgency Orders, etc., were dealt with by the Authorized Officer for the St. Albans Division.

It is of interest to record that of the 300 cases admitted to " observation wards " under Sections 20/21, 50 per cent were subsequently the subject

of Reception Orders, 17 per cent became Voluntary Patients, 4 per cent became Temporary Patients, 3 per cent died, 3 per cent were otherwise dealt with, and 23 per cent were discharged without further action under the Acts.

The figures included in the 1948 Report were for the first six months only after the coming into operation of the National Health Service Act and are not therefore comparable, but there was undoubtedly a marked increase in the work during the year 1949.

CARE OF THE AGED AND INFIRM.

Although no specific mention is made of the aged and infirm in the Sections of the National Health Service Act, relevant to the duties of Local Health Authorities, no report on the activities of the County Health Services can be regarded as complete without some reference to the needs of this section of the community. Their domiciliary care takes up a considerable part of the time of the home nursing staff and the assistance given to them forms approximately half of the work of the Home Help Service.

It has been estimated that 13 per cent of the population are now over the age of 65 years, and that this percentage is increasing. This steady ageing of the population has, during the last few years, caused concern, generally because of a lessening disparity in numbers between those who can work and those unable, as a result of age, to do so, but more particularly because of the difficulty in dealing with the aged who, in the later part of their lives, require care outside their family circle.

Prior to 1948 a bed was always found by the Public Assistance Authority for the " destitute ", a term permitting considerable latitude in its interpretation. The place of that Authority with its many responsibilties has now been taken by several other bodies. The Hospital Boards make available beds in their establishments for those requiring continuous medical or nursing care, the Welfare Authorities residential accommodation in their Hostels for the aged and infirm who cannot obtain care and attention in any other way, and the Assistance Board financial help where circumstances warrant it. It has already been seen that the Health Authority provides nursing care and domestic help in the home.

The shortage of beds in hospitals has exposed many weaknesses in the new arrangements. There are in the community many old persons who are considered by their medical attendants to require accommodation in hospital but who cannot be removed from their homes to obtain the care necessary for them.

With all this multiplicity of bodies interested in the old, no one has now the final positive duty of taking the needy aged into immediate care.

The present bed position has led to the expedient of the Hospital Authorities using Divisional Officers of the Welfare Committee to visit the homes of old people recommended for admission, to adjudge their general circumstances and thus to help in an assessment of the urgency of the case. These arrangements leave much to be desired and there is a very great need for some method of medical selection, including domiciliary visiting by a specialist. There must be a closer liaison between outside doctors and those in charge of beds in hospitals to ensure that the problem is as adequately dealt with as the hospital circumstances at the present time permit. The appointment of a Geriatrician, as a medical expert in the care of the aged is nowadays called, in every area of the County would be of value in helping to fill a gap in the service. This specialist could also be the medical adviser to cases in Part III accommodation in institutions or hostels provided by the Welfare Authorities. In each area the best use could then be made of the accommodation available for the aged who are infirm or sick.

Some of the hospitals have tried to increase the turn-over of cases by more energetic treatment of the chronic sick in their wards, and have found

it possible to make a greater proportion fit for discharge. The discharges would, however, be further increased if more of the aged could be found suitable accommodation outside. Unfortunately, the doors of the dwellings which they had previously left are all too often closed to them when they are fit to leave the hospitals. As new houses are built and more hostels provided, however, this problem should be eased.

The other problem, however, still remains, of keeping fit and active the old people discharged from hospitals, and of preventing others from deteriorating physically or mentally to a state requiring admission. The Local Health Authority provides a home nursing and domestic help service. The District Nurse, however, cannot give indefinitely a nursing service of hospital standard to a small number in her area without detriment to her other work, nor can the Home Help spend unlimited hours in an old person's home as a companion without increasing considerably the cost of this branch of the Health Services. The whole question of the care of the aged therefore very definitely requires consideration. The needs of most of those whose condition necessitates considerable nursing attention must be met by either hospitals or long-stay annexes associated with them, and it is a welcome sign that some hospitals are already arranging this provision. Those who require the minimum of nursing but who also need general supervision not obtainable from relatives or friends, could be accommodated in hostels under the Welfare Authority. The remainder of the aged and infirm in the community, fortunately by far the greater number, could probably continue to live their own lives in their small cottages, flats, or houses, helped by their families, or where this is not possible, by the Authority's services. It would be a useful provision if housing authorities when planning estates for old people could include accommodation for those whose duty it would be to care for them.

The old retain to a large extent their feeling of independence and wish to manage themselves as far as they are able, but help is often required with washing or dressing, or laundry. Important, too, is the need for some method of night supervision for a number living alone. The various authorities must soon consider to what extent they should therefore either augment their present provisions or develop others, as it is very unlikely that sufficient accommodation in either hospitals or hostels will be available for some considerable period.

It will have been seen that it is very necessary to try to help the elderly to maintain or to re-occupy their position in the community. It is very easy with advancing age to relax into a chair or a bed and to remain there, and this happened all too frequently among those who had not sufficient family ties to stimulate their interest. The hospitals are now trying to return to the community many who seemed destined to stay in bed for the rest of their lives, and these must be assisted to retain their health. Mobility must be retained as long as possible and much can be done by home activities and occupations which involve the normal use of legs and arms, and stimulate the mental processes. This service is still in its infancy except, probably, for those who can carry on an earlier interest in some particular craft or hobby.

However, recreation of a more general character can be found in some of the old people's clubs which have been started in recent years. Most towns in the County have these clubs meeting on one or more days each week. In addition to affording an opportunity for various forms of recreation they form a centre at which the old folk can meet their contemporaries and have a chance of participating in outings and entertainments. Some of the voluntary organizations in certain areas have arrangements whereby through a " Meals on Wheels " service food can be provided for the more helpless among the aged, and others have schemes for home workers or Leagues of Friends to visit the infirm in their homes, change library books for them, carry out their shopping, and generally make them feel that they are still within the community.

Impetus has been given to a greater development of these services by the formation of the Hertfordshire Old People's Welfare Council, a voluntary body formed in 1948 under the general guidance of the National Council of Social Service and with the blessing of the County Council.

This Welfare Council is endeavouring to bring together the different bodies interesting themselves in the well-being of old people, to co-ordinate the facilities available in the County, and to try to find means of increasing them when necessary and of extending them to areas not already served. The greatest official progress has so far been in the towns, but many of the villages and hamlets have for some time had their own schemes. The County is now being surveyed by the Welfare Council, and soon it is hoped to have groups of persons in every locality aware of the needs of the aged and infirm.

The problem of the elderly is social as well as medical, and at the present time there is not very close contact between the various agencies dealing with them. It is proposed that a link should be forged in the Divisional Health Offices, and with the help of the many field officers of the Health Committee to attempt to smooth the path of the aged.

As the members concerned with the welfare of the aged may wish to have a list of the club and other facilities available, the following particulars are supplied through the courtesy of the Hertfordshire Old People's Welfare Council, the W.V.S., and others :—

Clubs	Committees' Special Activities
BALDOCK.	
St. Mary's Church Room, Whitehorse Street, Baldock, Wednesdays, 2–5 p.m. Membership open to any resident of 60 years and over. A chiropody service is also in operation.	It is hoped to arrange an evening social once a month, a garden party in the summer, and a visiting rota.
BARNET.	
Alston Road, Tuesdays, 2–5 p.m., general club activities. Fridays, 3–5 p.m., whist drive. Tapster Street, Tuesdays, 2–5 p.m., general club activities. Fridays, 3–5 p.m., whist drive.	Hospital welfare work and arranging outings. It is hoped to open a club in Bells Hill area.
EAST BARNET.	
Girls' Club, Hadley Highstone, Mondays. Baptist Hall, East Barnet, Mondays. Ossidge Arms, East Barnet, Tuesdays. Lyonsdown Hall, New Barnet, Tuesdays. Friends Meeting House, Brunswick Park, Tuesdays. St. Marks Hall, New Barnet, Wednesdays. St. Mary's Hall, East Barnet, Fridays.	Hot Meals Service, serving 7 to 11 meals twice a week. It may be increased. It is hoped to take seventy old people to Clacton for a week in the summer, and to open a Home when suitable premises can be found.
BERKHAMSTED.	
Evergreen Club, King's Hall, Berkhamsted, Monday afternoons, fortnightly. Games, dancing, entertainment, library.	Two outings each year, sick visiting, transport to the club when necessary.
BISHOP'S STORTFORD.	
Evergreen Club, Methodist Hall, South Street, Thursdays.	Formation of visiting panel.
BUSHEY.	
Darby and Joan Club, Fire Station Recreation Room, Council Offices, Rudolph Road, Bushey. Wednesdays. Whist, darts, draughts, and library. No membership fee or charge for refreshments.	Visiting old people in their homes, arranging for Home Helps, attending to gardens, supplying coal at Christmas, giving advice and help. It is hoped to acquire premises for a permanent Club and a Home for old people.

CHESHUNT. Darby and Joan Club, Waltham Cross, Wednesdays. Darby and Joan Club, Goff's Oak, Tuesdays.	Christmas party, parcels for bedridden and confined to house, and some shopping and visiting. It is planned to carry out visiting on a geographical basis.
ELSTREE AND DISTRICT. Darby and Joan Club, Boreham Wood, Tuesdays.	Survey Committee guiding a house to house canvas of old people in the district. It is hoped to establish an " Old People's Friend " in every street to visit and look after old people.
HARPENDEN. Congregational Hall, Harpenden, Mondays.	British Red Cross Meals Service. It is hoped to open an Old People's Home, to carry out visiting and general welfare, and to make an up-to-date survey of the needs of the area.
HEMEL HEMPSTEAD. St. Paul's Hemel Hempstead, Thursdays, 2–4.30 p.m. Methodist Schoolroom, Apsley, Tuesdays, 2–4.30 p.m.	
HERTFORD. Y.M.C.A., Hertford, Mondays, Wednesdays, and Fridays, 2.30–5 p.m. Refreshments, games, music, magazines.	Erection of a temporary club building.
HITCHIN. Pavilion, Hitchin, every day. St. Mark's Hall, Hitchin, Thursdays, p.m. Youth Centre, Hitchin, Fridays, p.m. Tilehouse Street, Hitchin, Fridays, p.m. St. John's Hall, Hitchin, Thursdays, p.m.	Clubs and visitation. Engagement of two chiropodists to attend to members. Summer outings and Christmas party. Whist drives. It is planned to increase visitation, to set up an information bureau in each Club, and to open a new Club at Walsworth.
HODDESDON. Over 60's Club, Hoddesdon, Tuesdays, Wednesdays, and Fridays, p.m.	Hot Meals Service. Visitation Committee.
LETCHWORTH. Howard Hall, Letchworth, third Wednesdays of each month. Room at rear of Free Church Hall, Letchworth, Mondays to Fridays.	Chiropody Clinic, and Meals on Wheels Service. It is hoped to open another club in the Bedford Road area. There are plans for hostel provision.
RICKMANSWORTH. Darby and Joan Club, The Bury Civic Restaurant. Saturday afternoons. Croxley House W.V.S. Residential Club for Elderly People (32 residents).	W.V.S. Meals on Wheels—serves thirty people each Tuesday and Thursday. The Club arranges two or three outings a year. Home visiting. Clothing supplied, when necessary, through the W.V.S. office.
ROYSTON. Community Centre, Royston, every day.	

ST. ALBANS.	
Townswomen's Guild Club, third Thursday of each month. Fleetville Club, first Saturday of each month. Adult School Club, second Saturday of each month. Toc H Club, fourth Saturday of each month. Garden Club, third Saturday of each month.	Visiting. Glenalmond Hostel. Mobile meals on Tuesdays, Wednesdays, Thursdays, and Fridays. Attending old people at cinema weekly. Distribution of food gifts from Australia. Visiting inmates at Osterhills and entertaining them weekly.
STANDON AND DISTRICT.	
It is hoped to start a Club in October or November.	The formation of a club and organized visiting of old people in the district.
STEVENAGE.	
Lytton Club, Pound Avenue, Stevenage, Mondays, 2–5 p.m.	To form an Old People's Welfare Committee.
WATFORD.	
Darby and Joan Club, Clarendon Road. Open six days each week from 11.30 a.m.–5.30 p.m.	
WELWYN.	
Jubilee Club, Welwyn, Mondays and Thursdays, 2–5 p.m.	Planned to improve facilities and obtain better accommodation.
WELWYN GARDEN CITY.	
Community Centre, Welwyn Garden City, Mondays and Thursdays, 2.30–4.30 p.m. Membership open to any resident of 70 years or over.	Foot clinic, club library, hairdressing service for men, outing to seaside in summer and pantomime in winter, visits to local musical and dramatic productions and nearby Old People's Clubs, refreshments at meetings, sick visiting in home and hospital, second-hand gift clothing scheme.

ENVIRONMENTAL HYGIENE AND SANITARY ADMINISTRATION.

During the year a major change in the work of the Public Health Section of the Department was brought about by the transference of duties in connection with the licensing and supervision of tuberculin tested and accredited farms to the Ministry of Agriculture and Fisheries.

At this stage it is impossible to foresee what benefits, if any, will accrue by centralizing the control of farm milk production. In theory, central administration appears advantageous in that uniformity in the standard of hygiene and in the control of milk production generally can be more easily achieved. There are many difficulties involved, however, when such work is taken from Officers of Local Authorities who, by the very nature of their work in other spheres, are " public health minded " and transferred to a Government Department which has, in the past, been more concerned with the economics of farming.

Under the new régime, we have yet to see what supervision will be applied to those dairy farms producing non-designated milk. It is possible that the responsible Officers of District Councils, many of whom thought that they were saying farewell to a very great proportion of their " milk duties ", may yet be able to play an important role in ensuring that the consumers in their Districts are obtaining a bacteriologically satisfactory milk supply. Samples

of farm milk taken during the course of delivery which prove to be bacteriologically unsatisfactory, may, by being brought to the notice of the Ministry of Agriculture and Fisheries, result in the necessary measures being taken against those farms where conditions of cleanliness are lacking. Under the Milk and Dairies Regulations, 1949, the Ministry possesses greater powers for dealing with defaulting dairy farmers than were hitherto conferred on Local Authorities, and it is hoped that these powers will be of material assistance in ensuring a " clean " milk supply for the public.

The Milk (Special Designation) Act, 1949, with its restriction on the sale of non-designated milk in areas specified by the Minister of Food, should do much to improve the safety of milk for the community. It is not in itself sufficient for milk to be clean ; it must also be safe in that it is free from those organisms harmful to man.

1. Milk and Dairies.

(*a*) *Milk (Special Designations) Regulations, 1936–48.*

Although I stated in my Annual Report for 1948 that I did not intend to give a detailed account of duties under the above Regulations, which concern work now dealt with by the Ministry of Agriculture and Fisheries, I think it would perhaps be of interest for me to summarize briefly the progress which has been made in respect of the control and supervision of designated milk production in the county between 1936 and 1949. The limited statistics relating to 1936 show that the number of licensed tuberculin tested herds was 49 whilst the number of accredited herds was 224. In 1936 there was one herd only in the county comprising 34 cattle which belonged to the Attested herds scheme. When these figures are compared with those appertaining when the transfer of duties to the Ministry of Agriculture and Fisheries took place on the 1st October, 1949, the progress is very noticeable. The number of tuberculin tested herds had risen to 262 while the number of accredited herds had fallen to 148. The reduction in the number of accredited licences meant that many farms, which were formerly accredited, had risen to higher rank, and by removing reactors from the farm and increasing the general standard of premises, had qualified to become tuberculin tested. In 1949 the number of Attested herds had risen to 279.

A steady increase in the efficiency of supervising designated milk production was made and by the time the County Council was relieved of its duties a scheme of supervision had been evolved whereby every designated farm was visited once a quarter and a sample obtained for bacteriological examination. Where a failure was recorded, subsequent follow-up work was carried out in an endeavour to find the cause and where three or more consecutive failing samples were obtained the producer was brought before the County's Milk Sub-Committee to consider revocation or suspension of the designated licence. This latter action was only taken as a last measure when advisory work had failed to effect an improvement.

(*b*) *Pasteurising Plants.*

When the Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949, became operative on the 1st October, the County Council was made responsible for the licensing and supervision of pasteurising establishments within the Food and Drugs area of the county, that is, for the whole county area with the exception of the City of St. Albans and the Borough of Watford. Existing pasteurising licences granted previously by the District Councils continued in force until the end of the year and then became renewable by the County Council. New applications were dealt with by the County Council from the 1st October, 1949, onwards.

The importance of milk pasteurisation cannot be overlooked, both from its commercial aspect in improving the keeping quality of milk by destroying a large proportion of the souring (lactic acid) organisms, and most important of all, by destroying pathogenic organisms such as tubercle bacilli and brucella abortus which might be present. Many people who, until recently, decried the process as being just another unnecessary complication, are changing their opinions when they realize that the incidence of bovine tuberculosis in human beings is materially lower in those areas where pasteurised milk is predominant.

Pasteurisation is, even in its simplest form, a complicated process, and considerable vigilance is necessary on the part of the processor and the officers responsible for supervising and checking the efficiency of pasteurising plants. With this in mind a survey of all the plants was commenced and completed before the end of the year in order to obtain detailed information on the various plants in use, their limitations and the methods adopted in the process. Inspections were made in conjunction with the appropriate officers of the District Councils, as Local Authorities have still an interest in pasteurising premises as being dairies which require registration under the Milk and Dairies Regulations, 1949. Considerable co-operation was met with on all sides which resulted in efficient liaison between the County Council and District Councils.

One important aspect of pasteurisation which must not be overlooked is the power now vested in the District Medical Officer of Health to divert for pasteurisation milk from herds known to be secreting bovine infections pathogenic to man. This increases the need for efficient dairy plants as such action is nullified if the diverted milk is so inadequately heat-treated that pathogenic organisms survive.

The frequency of sampling to detect the efficiency of heat-treatment varies somewhat with the size of the plant and the total output. Some of the pasteurising establishments are sampled several times weekly by the County Council's Officers, and such sampling is supplemented by distribution samples obtained by District Sanitary Inspectors. Many of the plants supply pasteurised milk directly or indirectly to the County Council's schools, and sampling under the Milk in Schools Scheme offers a further test of efficiency.

It must be appreciated that three months only were allowed for sampling schemes to be fully reorganized and for the survey of plants to be completed. The following samples, however, were obtained at the plants between the 1st October, 1949, to the end of the year, and the table below sets out the results :—

TABLE NO. 22.

No. of Samples	Phosphatase Test		Bacteriological Examination	
			Methylene Blue Test	
	Pass	Fail	Pass	Fail
94	93	1	94	—

Investigations at the dairy are immediately carried out following cases of pasteurised milk failing to satisfy the prescribed tests, and every effort made to determine the cause of failure and prevent its recurrence.

(*c*) *Analysis of types of Pasteurising Plants in the County.*

There are 17 plants in the Food and Drugs area of the County Council which vary considerably in their capacity, the smaller plants treating some 200 gallons of milk per day and the larger plants several thousands of gallons per day. The survey showed that of the total number of plants, five were of the High Temperature Short Time variety, eight were Batch Pasteurisers using the " Holder " principle, the remaining four being also of the " Holder " type, but with the " Holders " coupled and the inflow and outflow of the milk mechanically controlled so that a continuous flow of pasteurised milk is available for bottling.

There are no sterilizing plants under the County Council's control.

(*d*) *Defence Regulation 55 G.*

With the coming into force of the new Pasteurised and Sterilized Milk Regulations, the old Defence Regulation 55 G which was in reality a step forward in encouraging the heat-treatment of milk for sale to the public, became obsolete as from the 1st October, 1949, although the heat-treatment bonus paid by the Ministry of Food to pasteurisers is being continued. The following table shows the results of samples taken under Defence Regulation 55 G between the 1st January and the 1st October, 1949.

TABLE No. 23.

Type of Plant	No. of Samples	Phosphatase Test		Bacteriological Examination — Methylene Blue Test	
		Pass	Fail	Pass	Fail
Pasteurising . . .	180	175	5	168	12
Heat-treatment . . .	72	70	2	71	1
TOTALS . . .	252	245	7	239	13
Plus samples taken under new Regulations—Table No. 22	94	93	1	94	—
TOTALS . . .	346	338	8	333	13

An analysis of phosphatase test failures from the various plants using the different methods of processing is as follows :—

	No. of Samples	No. Failing Phosphatase Test	Percentage
H.T.S.T. plants . .	118	–	Nil
Batch pasteurisers . .	163	5	3·0
Holder plants coupled to obtain continuous flow	65	3	4·5

These results show up the High Temperature Short Time type of plant in a very favourable light in comparison to the other methods of pasteurisation in use. One of the contributing factors towards this may be the automatic temperature control on this type of plant as opposed to the manual temperature control on the smaller holder types.

2. Food and Drugs Act, 1938, Section 25.

(*a*) *Biological Sampling of Milk for presence of Tubercle Bacilli.*

The scheme for sampling farms in the County every nine months and the testing of samples for the presence of tubercle bacilli and brucella abortus continued. In previous years one laboratory only was carrying out a routine examination for the presence of brucella abortus, but the other laboratories in use were approached and arrangements made for routine testing for Brucella to be carried out in addition to the detection of tubercle bacilli. In addition, with the loss of some duties under the Milk (Special Designations) Regulation 1936–48 consequent upon the transference of this work to the Ministry of Agriculture and Fisheries, it became possible for the biological sampling scheme to be extended not only to cover the accredited and non-designated herds but also the tuberculin tested herds as well. It might be considered that the inclusion of tuberculin tested farms in a scheme to detect the presence of tubercle bacilli in milk was being " over cautious ". The tuberculin test, however, although excellent in detecting reactors in a herd, is not absolutely infallible and in the period between tests an animal can contract the disease and may secrete organisms in the milk before the next test or clinical examination is due.

Although it must be accepted that the percentage of positive samples from tuberculin tested herds will be considerably lower than from herds containing animals not subject to the routine tuberculin test, i.e., accredited and non-designated herds, the advisability of including tuberculin tested herds was forcibly brought home when a positive milk sample was obtained from such a herd soon after the extension of the sampling scheme. Clinical examination showed that an animal had contracted the disease between the routine tuberculin tests and become a " secreter ". In addition, the fact that a herd is tuberculin tested does not exclude it from possible infection by brucella abortus, causative organism of contagious abortion in cattle and undulant fever in man. Figures for positive brucella abortus samples will be found under the appropriate heading in this report.

Biological samples are taken at the farm only, as sampling of this nature in the course of milk distribution or at dairies where milk from many herds may be bulked leads to considerable difficulty in tracing positive samples back to the infected herd. The following table shows results of samples examined for tubercle bacilli during the year. The sampling figures for tuberculin tested herds are of course very small as the scheme was only extended to these herds towards the end of the year.

Table No. 24.

Total No. of Samples		Tests Incomplete	Tests Complete	Definite Results		Percentage of Positive Samples
				Positive	Negative	
Tuberculin tested	124	10	114	1	113	0·877
Accredited . .	198	22	176	12	164	6·81
Non-designated .	523	48	475	13	462	2·8

The number of incomplete samples relate to those cases where the guinea-pig died prematurely and the laboratory was, therefore, unable to give a definite result. Such samples are always repeated. The samples are excluded for the purpose of percentages. The reason for a higher percentage of tuberculous samples from accredited herds is that these herds are usually larger than non-designated herds, and one secreting animal is all that is necessary to give a positive bulk sample representative of the herd.

Positive tubercle samples are notified immediately to the Divisional Veterinary Inspector of the Minister of Agriculture and Fisheries who causes an examination to be made of the herd. If the infected animal or animals are not found on clinical examination, then group sampling is carried out until the cause of the trouble is determined. Naturally during the period of the Divisional Inspector's inquiries at the herd, tubercle organisms must still be regarded as being secreted in the milk. This is now taken care of by the powers given to District Medical Officers under the Milk and Dairies Regulations, 1949, to stop the sale of infected milk or divert it for pasteurisation. The District Medical Officer is notified as soon as a positive sample is obtained to enable him to take such action, and there is a three cornered liaison between this Officer, the Divisional Veterinary Inspector, and the County Health Inspector. On completion of the inquiry, a further check sample is obtained at the herd by the County Council's Sampling Officer as a further precaution.

As a result of the farm investigations made by the Divisional Veterinary Inspector subsequent to our notifying him of 26 positive samples, 15 cattle were taken under the Tuberculosis Order, 1938. In 10 cases, suspicious animals had been removed from the herd and sold for slaughter, while on two farms only, the secreting animals could not be traced.

It sometimes happens that during the interval which must elapse between the taking of a sample for biological examination and the announcement of the result, the secreting cow may have been sold from the herd. This means that while the veterinary examination usually discloses the affected animal, it cannot always be successful.

It has recently been possible to arrange with the Divisional Veterinary Inspector for a list of farms to be supplied to the department where the herd history, because of a high percentage of re-actors on the farm or trouble with tuberculous animals in the past, necessitates more careful control. Such farms will be visited and sampled biologically at intervals of three months.

(*b*) *Undulant Fever.*

One case of Undulant Fever was notified during the year. As previously explained all the laboratories now examine biological milk samples for the presence of brucella abortus. It was only possible to make these arrangements for the examinations of samples for brucella towards the end of the year and the following figures are limited to samples of milk which were so examined.

Of the 510 samples examined, 39 (7·65 per cent) were reported as being positive.

TABLE 25.

Analyses of Positive Brucella Abortus Samples during the year 1949.

Total No. of Samples		No. of Positive Samples	Percentage
Tuberculin tested .	122	4	3·44*
Accredited . .	99	8	7·1
Non-designated .	289	27	9·3

* This relatively lower percentage for Tuberculin Tested herds may in some measure be due to higher standards of herd management. When a cow aborts, rapid action must be taken to isolate the animal and disinfect the premises. Where this is not carried out, infection may stay in the herd for a long time.

Under the Milk and Dairies Regulations, 1949, District Medical Officers have been given the power of stopping or diverting milk for pasteurisation where there is evidence of brucella infection in it. This has led to some confusion owing to the peculiarities of brucella secretion. Our inquiries in the past have shown that when a cow aborts, the organisms may be secreted for an indefinite period, sometimes for as long as eight to ten years. The secretion is not continuous, but intermittent with the result that when a repeat sample is taken following a " positive ", there is quite a strong chance that it may prove negative. This would normally allay suspicion, but often a further sample will again show a positive. The question then arises as to how long milk affected with brucella should be diverted for pasteurization. To be absolutely on the safe side it would mean that the milk would have to be pasteurised for as long as an intermittent secreter is allowed to remain in the herd. A further complication thus arises in that the producer/retailer who has built up a good dairy herd and who may be retailing raw tuberculin tested milk in the area, may well suffer a pecuniary loss when he finds that his milk has to go for pasteurisation to a wholesale dairy. The Local Authority is required to compensate him for such a loss and the Ministry of Health refunds a proportion of the compensation money to the Local Authority concerned, but the question remains as to the length of time diversion must be continued.

When it is considered that the number of undulant fever cases notified are exceedingly few—15 cases were actually notified in the four years prior to 1949—it will be seen that the question as to whether milk positive to brucella should be stopped or diverted for pasteurisation is one not easy of solution. Although this side does not directly affect the County Council, the fact that we have an arrangement whereby our positive brucella samples are notified to District Medical Officers, enables some co-ordinated scheme of action to be attempted. Some guidance from the Ministry of Health is desirable to indicate measures to be adopted by the District Medical Officer when he has evidence of a herd secreting brucella abortus.

3. Milk in Schools Scheme.

As in 1948, all day nurseries and nursery schools are supplied with pasteurised, heat-treated, or tuberculin tested milk, and by 1949 all school departments were similarly supplied. It has always been considered that where raw milk is consumed in schools the only grade permissible should be " tuberculin tested ". Raw milk from accredited and non-designated herds cannot be classed as satisfactory for consumption by school children. as these herds may contain animals which are reactors to the Tuberculin Test and the owner of the herd is not legally obliged to remove them.

A satisfactory position has now been arrived at with regard to the grades of milk supplied to schools within the county, although the position would still further be improved if all schools had a supply of " tuberculin tested (pasteurised) " milk. Various difficulties still exist, however, especially with regard to production and distribution of milk in rural areas, and it is difficult to improve the supply at the moment. A total of 300 schools and 36 nurseries are receiving a supply of pasteurised milk, while 22 schools and one nursery received tuberculin tested milk.

During the year an investigation was carried out in an effort to improve the grade of milk supplied to school canteens and efforts have been made to bring the standard in line with milk supplied to the schools. Most canteen milk is used for cooking purposes and is subject to heat in one way or another, but nevertheless it is considered desirable that the same approved grades of milk as supplied under the Milk in Schools Scheme should be used by the school canteens. By the end of the year nine school canteens only were known to be receiving a regular supply of accredited or non-designated milk.

Sampling.—Samples under the Milk in Schools Scheme are taken at the school or nursery and milk supplied by each individual dealer is tested at least twice a term. In point of fact, some of the larger dealers supplying a number of schools or nurseries are sampled with considerably more frequency.

The following table shows the results of samples obtained.

TABLE 26.

	No. of Samples	Phosphatase Test		Methylene Blue Test	
		Pass	Fail	Pass	Fail
Pasteurised and heat-treated milk	503	486	17	494	5
Tuberculin Tested milk . .	99	—	—	88	11

These results can be taken as generally satisfactory bearing in mind that when an unsatisfactory sample is discovered by routine sampling, further samples are obtained. Thus a final percentage of failing or unsatisfactory samples is unfairly weighted by the inclusion of a high percentage of repeats of failed samples. Where three consecutive samples fail the prescribed tests, the policy is to withdraw the approval of the supplier. Such action was not necessary during 1949.

Prior to the 1st October, 1949, investigations into causes of tuberculin tested milk failures at the schools could be extended to the farm where the milk was produced owing to the County Council being the licensing authority for designated herds in the County area. When the Ministry of Agriculture and Fisheries took over the control of milk production on the 1st October, 1949, such direct action was no longer practicable, but a scheme of liaison with the National Milk Testing Service, working under the Ministry of Agriculture and Fisheries has been developed and should lead to co-operation in the matter and minimize the drawbacks of the new scheme. As far as failures of pasteurised school milk samples are concerned the position has been somewhat clarified as many of the schools are supplied with pasteurised milk from plants which came directly under the control of the County Council on the 1st October, 1949. Investigations can, therefore, be undertaken by the responsible Officers of the County Council to determine the cause of the failure.

4. SWIMMING BATHS.

Once again this year regular sampling was continued at swimming baths used by schools. In all 243 samples were taken from 22 baths approved for use in the County. Of these, 199 were satisfactory, 5 of doubtful quality, and 39 were unsatisfactory.

In the case of one bath, sampling activities were greatly intensified at the height of the season owing to a high proportion of failures. The cause of the trouble was located and by the end of the season more satisfactory results were obtained. In general the water should be equal in purity to a reasonable drinking water supply. The results can, therefore, taken as a whole, be regarded as satisfactory.

Three other baths used by Hertfordshire children are situated outside the County boundary and the sampling and control of these is covered by the local sanitary authority. While the County Health Inspectors themselves took some of the samples, the majority were taken by the Sanitary Inspectors of the District Council, to whom must go our sincere thanks for the willing co-operation which has made this work possible.

The swimming baths used by County school children can be divided roughly into two categories ; those using the modern method of continuous flow with pressure filtration and sterilisation of the water by the injection of chlorine or ozone by automatic devices, and those baths, usually small in size, which are dependent on the " fill and empty " system for the maintenance of a bacteriologically satisfactory water. While the former pools, providing that adequate supervision of the purification plant is maintained, are capable of giving satisfactory results, the latter type can never be considered entirely satisfactory.

A " fill and empty " bath necessitates the water being completely changed at regular intervals, depending on the bathing " load ". During the period when the bath is in use considerable attention is required to ensure that the water is dosed with a suitable hypo-chlorite solution so that a residual chlorine figure is maintained of not less than 0·5 p.p.m. It is essential, therefore, for frequent tests to be carried out on the water during the day using a simple chlorine estimater to detect the residual chlorine figure in the water, and should this commence to fall due to overloading of the pool or any other cause then additional hypo-chlorite solution must be added to the water. During those periods when the bath is empty the sides and floor need to be carefully scrubbed with a fairly strong hypo-chlorite solution to destroy algæ.

5. Housing.

Rural Housing Survey.

The survey of rural housing conditions was finally completed by the end of November, 1949, and Table 27 gives details of the result in each district. The Rural Housing Survey which was initiated following the Third Report of the Rural Housing Sub-Committee of the Central Housing Advisory Committee on " Rural Housing ", which became more generally known as the Hobhouse Report, was intended to determine the position with regard to the standard of rural housing in the country. The main objectives of the report were to initiate a planned programme to improve rural housing conditions to the highest possible level in a given number of years, and at the same time to level up the standard of housing in more backward authorities to the level achieved in the more progressive authorities.

One of the contributing factors towards the curtailment of extensive repair work on the older type of country cottage is the fact that rentals are often fixed at a low rate by existing legislation, and do not give a reasonable return to the owner to encourage him in the outlay of much money on the property. We have yet to see what progress can be made under the Housing Act, 1949, where improvement grants not to exceed one-half of the estimated cost of improvement works, as approved by the local authority, can be made to a private owner for improving the standard of the property. Such grants are limited to between £100 and £600 of the cost of the improvement scheme. Certain limitations are imposed on the letting of a house which has been subject to an improvement grant and among other things it must be occupied by the applicant for the grant or a member of his family, or made available for letting at the original rent plus a 6 per cent increase of the cost of the works borne by the owner or in certain other circumstances as arranged by the local authority. The fact that these conditions are imposed for a period of twenty years from the date of the grant will doubtless incline owners to be less enthusiastic in applying for aid than a preliminary reading of the Act would suggest.

TABLE 27.

Rural District	Total No. of Houses Inspected	Classification *				
		1	2	3	4	5
Berkhamsted	1,109	323 (29·0%)	154 (13·9%)	521 (47·0%)	—	112 (10·1%)
Braughing	2,790	462 (16·6%)	455 (16·3%)	1,285 (46·0%)	—	588 (21·1%)
Elstree	1,503	1,338 (89·0%)	—	65 (4·3%)	6 (0·4%)	94 (6·3%)
Hatfield	4,122	418 (10·1%)	1,670 (40·5%)	1,628 (39·5%)	—	406 (9·9%)
Hemel Hempstead	2,279†	718 (32·0%)	557 (24·8%)	561 (25·0%)	30 (1·3%)	378 (16·0%)
Hertford	2,057	521 (25·3%)	523 (25·5%)	809 (39·3%)	—	204 (9·9%)
Hitchin	5,229	1,709 (32·7%)	1,919 (36·7%)	1,250 (23·9%)	—	351 (6·7%)
St. Albans	4,558	3,376	(74·1%)	810 (17·8%)	—	372 (8·1%)
Ware	2,048	569 (27·8%)	581 (28·4%)	476 (23·2%)	—	422 (20·6%)
Watford	4,354	3,176	(73·0%)	894 (20·5%)	—	284 (6·5%)
Welwyn	1,002	112 (11·2%)	118 (11·7%)	658 (65·7%)	—	114 (11·4%)
Whole County	31,051	18,698	(60·3%)	8,957 (28·9%)	36 (0·1%)	3,325 (10·7%)

* CLASSIFICATION.

1 . Satisfactory in all respects.
2 . Minor defects.
3 . Requiring repair, structural alteration, or improvement.
4 . Appropriate for reconditioning under the Housing (Rural Workers) Acts.
5 . Unfit for habitation and beyond repair at a reasonable expense.

Classification 4 in the table printed above is provisional only—houses in Classes 3 and 5 will be reviewed.

† Includes 35 temporary structures considered satisfactory but not included in the classification.

New Housing.

The following table shows the position regarding new housing provided by local authorities in the County at the 31st December, 1949. It is taken from the Ministry of Health return.

Table 28.

District	Permanent Housing		Temporary Housing
	No. under Construction	Completed	Completed
Boroughs—			
Hemel Hempstead	53	283	50
Hertford	88	108	50
St. Albans	284	641	109
Watford	320	729	100
Urban Districts—			
Baldock	55	130	—
Barnet	23	198	100
Berkhamsted	55	87	30
Bishop's Stortford	13	285	85
Bushey	—	261	50
Cheshunt	84	346	135
Chorleywood	18	52	—
East Barnet	—	486	50
Harpenden	57	243	25
Hitchin	78	211	50
Hoddesdon	49	167	38
Letchworth	111	294	50
Rickmansworth	95	462	100
Royston	17	84	—
Sawbridgeworth	—	65	10
Stevenage	50	158	20
Tring	10	84	—
Ware	—	138	13
Welwyn Garden City	50	298	150
Rural Districts—			
Berkhamsted	6	56	—
Braughing	54	230	—
Elstree	78	600	100
Hatfield	70	217	66
Hemel Hempstead	41	101	35
Hertford	46	146	—
Hitchin	44	218	38
St. Albans	140	273	6
Ware	16	230	—
Watford	92	150	50
Welwyn	24	50	46
Total	2,121	8,081	1,556

6. Refuse Dumps.

At the end of the year there were twenty-four sites in the County licensed by the County Council and Local Authority for the reception of the various types of refuse. Four of the dumps receive household refuse, one destructor screenings, and nineteen non-putrescible material (including builders' rubble).

One new licence was issued in 1949 for the disposal of inorganic material (builders' refuse), while filling at two sites was completed during the year.

Two complete surveys were carried out to obtain levels and rates of sinkage on the two large central tipping sites in the County. The levels were taken by a member of the County Surveyor's staff working with the County Health Inspector.

From time to time visits have been made to mineral excavations in the County with a view to determining their suitability for the reception of refuse.

In this connection considerable assistance has been given to the Department by a geographer from the County Planning Department.

In 1949 no serious trouble was experienced during the filling of "wet" pits with non-putrescible material. In each case a sufficient water area remained in the pits to inhibit the growth of anærobic sulphate reducing bacteria. These organisms are capable of liberating the offensive smelling gas, sulphuretted hydrogen, in water containing sulphates which are normally introduced by the disposal of plaster board and similar materials.

The County Health Inspector made 109 inspections of controlled refuse dumps during the year.

The Disposal of Domestic Refuse in relation to Water Supplies in Hertfordshire.

At the conclusion of my last report on this subject, I noted that a conflict of interest was developing in this County between those primarily concerned with refuse disposal and those responsible for water supplies. During the past year the subject has been studied in some detail, and it is now possible to discuss briefly the problem in its larger aspects.

This conflict of interest lies not only between refuse disposal and water supplies, but it involves also those who are interested in mineral working, building, planning, the preservation of natural amenities, and agriculture in its widest sense. A problem of this complexity calls for careful study by someone in a position to acquire a working knowledge of all its facets—someone who can give disinterested and sound advice on the relative merits of the conflicting claims on the mineral deposits in this County, and the subsequent action necessary to restore the ground to some useful purpose.

The only common factor in this complex situation is the fact that, in varying degree, all its aspects have a bearing on the health of the County, and this led inevitably to the conclusion that a study of the problem could most properly be undertaken by my Department. In the report which follows I have tried to develop the problem as it unfolded itself when we began to study it in detail, and to show how sand and gravel digging have a bearing on housing, how houses create a demand for a pure water supply and, at the same time, produce sewage which is—and refuse which may be—a menace to these water supplies.

Mineral Working.—It may not, at first sight, be obvious that mineral working has any relation to health but, on reflection, it will be realized that adequate housing is at present perhaps the most urgent need if the physical—and, even more, certainly the mental—health of the community is to be prevented from deteriorating. The availability of sand, gravel, clay for bricks, and other building material in sufficient quantities, and reasonable in price and accessibility is of great significance in building, and Hertfordshire is abundantly supplied with these materials.

The preparation of building sites and foundations leads to an accumulation of builders' refuse which has to be disposed of. The cost of disposing of this refuse can be a heavy item in any building project. The County is well supplied with old mineral workings which can be used for this purpose.

Water Supplies.—Houses presuppose a water supply and, in Hertfordshire, this usually means a piped supply drawn from deep wells in the chalk which underlies the County. A diminishing rainfall and increased demands for water in this County have meant the disappearance in most places of the individual, relatively shallow, wells which used to be the source of water to single houses or small villages. Piped supplies from deep wells for domestic water can only be contemplated by Local Authorities or Water Companies, and most parts of this County are now supplied in this way.

Chalk water is naturally pure, and the costs of supply are kept down if it remains pure ; but chalk is notoriously susceptible to contamination and,

where chalk is exposed—either naturally as a result of weathering, or artificially because the overlying strata have been dug away—there is a great danger to the underlying water if poisonous or disease-carrying materials are placed on the chalk. Much of the chalk in the north of the County is exposed. In the mid-zone the chalk is protected by top soil, sand, gravel, and clay in varying depths. In the course of years the gravel and sand have been widely excavated, the population of the area has increased manyfold, the demand for water has increased out of all proportion, and it has become increasingly important for the water undertakers to safeguard the chalk from the menace of pollution.

Sewage.—Housing development inevitably introduces this menace in a serious form. An abundant piped water supply must be accompanied by a water carriage sewerage system. This sewage may be conveniently lost in leaky cesspits in porous soils, though building by-laws frown on this method. It may be collected in sewers and treated at a sewage farm or sewage treatment works. In either case the effluent must either find its way back through the soil to the underlying strata, or gain access to a watercourse. The second alternative is unpopular in Hertfordshire, where our main river—the Lea—is ultimately used to augment the London water supply. The Lea Conservators and the Metropolitan Water Board have very wide powers to prevent pollution of the watercourses in the Lea Catchment Area.

The problem of the disposal of sewage is at present particularly acute in this County. The provision of piped water supplies has been developed in advance of adequate methods of sewage disposal. Many houses are still served with cesspits. If these cesspits are made water-tight or, if they are in impervious soil which does not permit drainage, they have to be emptied by cesspit emptying tankers. These vehicles are difficult to man and costly to run. The longer the journey the tanker makes to dispose of its load when it is full the greater the cost to the rates and the more tankers needed to cover a given district.

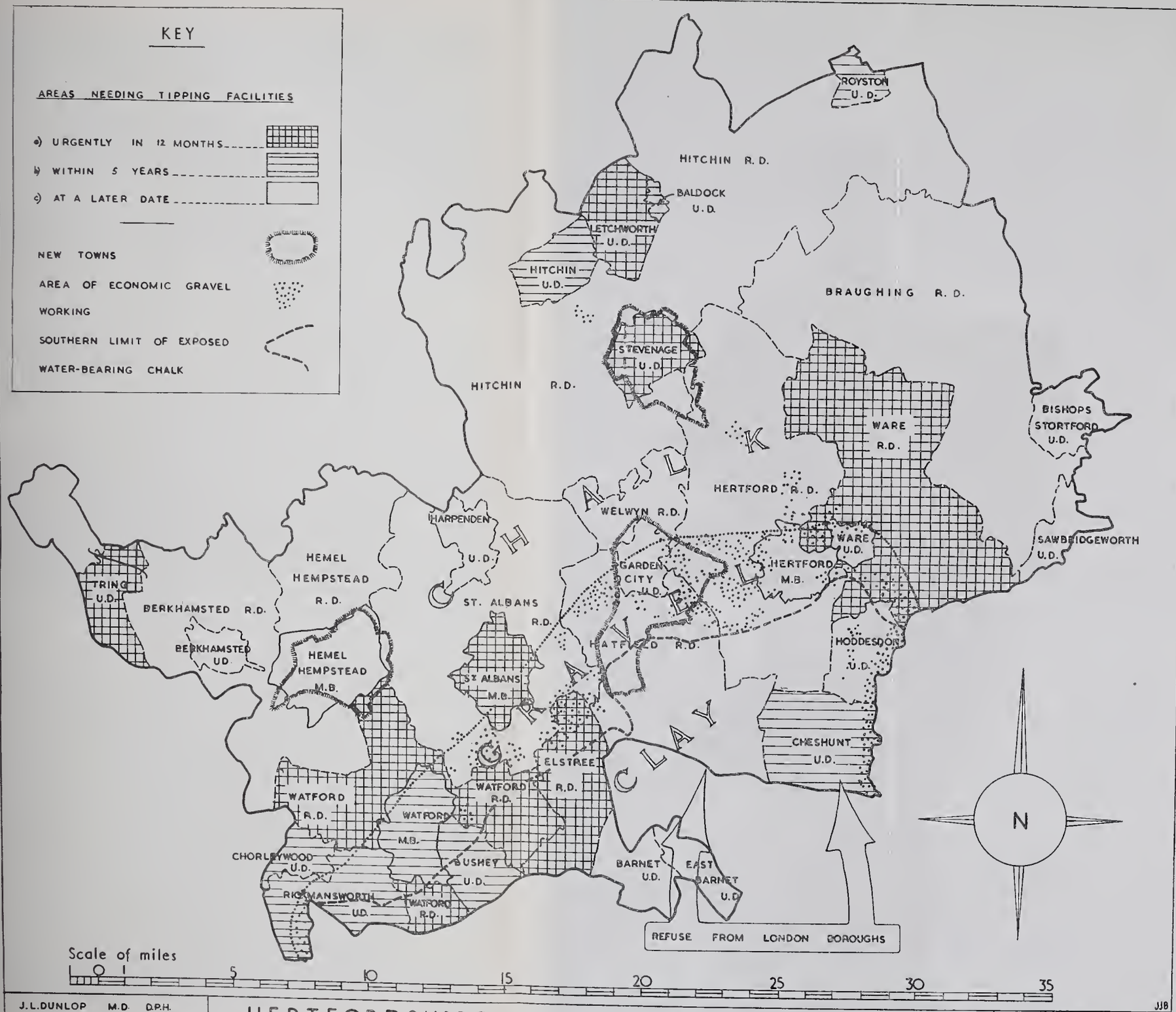
If tankers are operating within reach of a sewer to which they can discharge their loads, this is satisfactory, though it may be unpleasant for those living in the houses at the point of discharge. If, as often happens, there is no sewer within reasonable distance, the transfer of sewage from cesspit to the tanker merely creates a new problem in disposal; and, in these circumstances, the person in charge of the tanker may be tempted to deposit the contents in one of the numerous spinneys which mask the old mineral-working sites in the County. The quicker the spinney drains, the less chance there is of any complaints arising. Unfortunately, an old chalkpit is ideal for this purpose.

When one is discussing the problem of the disposal of human sewage in relation to water supplies, there is no scope for argument. Sewage or its derivatives should not have access to water-bearing strata without passing through a filtering medium which is known to be efficient both in its texture and extent.

Domestic Refuse.—In addition to sewage, however, human habitations create a refuse disposal problem. The size of this problem is probably not appreciated by those who do not have to face it. It is estimated, for example, that 450,000 cu. yd. of domestic refuse have to be disposed of by the Local Authorities in Hertfordshire every year, and at least a further 500,000 cu. yd. are brought into the County each year from the London boroughs which cannot, of course, finally dispose of refuse within their own boundaries.

Domestic refuse can be disposed of in several ways. It can be dealt with in incinerators which are costly to erect and maintain. Apart from cost, the incinerator has its problems in the disposal of the preliminary screenings and ultimate ash.

At the other end of the scale, household refuse can be disposed of by merely dumping it in a pit. The deeper the pit, the longer it lasts and, if the dump catches fire, the pit will last still longer. The objections to this method of disposal are obvious to those who live within range of the smoke, smell, rats, and flies.



J.L.DUNLOP M.D. D.P.H.
COUNTY MEDICAL OFFICER,
COUNTY HALL, HERTFORD.

HERTFORDSHIRE COUNTY COUNCIL
DISPOSAL PROBLEM IN COUNTY DISTRICTS

PREPARED BY
THE COUNTY PLANNING OFFICER
E.H.DOUBLEDAY M.T.P.I.

JJB

There is a third method—controlled tipping—where the rubbish is deposited in layers of about 6 feet in depth and quickly sealed with soil. If necessary the pit is regularly treated for rats and insects. The organic elements in a controlled tip quickly rot down to a fertile and unobjectionable humus.

Any of the foregoing methods of disposing of household refuse is open to the very valid objection that organic material which has considerable agricultural value is being disposed of uneconomically. It is well known that, where labour is cheap, sewage or sewage sludge and household refuse can be composted to give a product which is valuable to agriculture—material which could do much to heal the scars which are created when human activities displace the top soil.

Composting of night soil and refuse has not been considered a practical proposition in this country on account of the cost involved in the preliminary sorting out of metal and glass, and in the man-handling of large bulks of material. A few experiments have shown that it is practical, however, and the advent of the bulldozer and the mechanical shovel and grab justify the hope that this method of disposing can be developed in future.

Hertfordshire incidentally is in a unique position to experiment in this development. We shall soon have the Colne Valley Sewerage Scheme with its problem of disposing of the sludge. We already have in the County a firm of contractors with a vast experience in handling household refuse. Discussion with both interests show that they are likely to be willing to join forces in an endeavour to solve their common problem to their mutual benefit.

But for two factors, the disposal of domestic refuse in Hertfordshire would not be difficult. The County is well supplied with old mineral workings, and there are few districts which are not within reach of a disused gravel or sand-pit which everyone would be glad to see filled in and restored as useful land. Unfortunately in the south-west, where the need for pits of this kind is most urgent,* the subsoil water level is high and most of the pits are waterlogged.

Controlled tipping, as at present practised, cannot be carried out in a wet pit. This is probably not an insuperable problem if it were the only one. There is a second and more serious problem—the objection of the water undertakings to tipping putrescible domestic refuse on any site where there is the slightest chance of seepage from the tip gaining access to the water-bearing chalk without first going through a well-defined stratum of sand or other recognized filtering medium.

Putrescible Refuse and Water Supplies.—It is understandable that official bodies primarily interested in the purity of water supplies should be innately suspicious of the unsavoury accumulations which are seen in refuse pits. Ordinarily, a Medical Officer of Health would probably have accepted this suspicion as a warrantable assumption which it was unnecessary—even if it were possible—to dispute ; but, as was shown in my last report, it is no longer practicable to adopt this attitude in Hertfordshire.

Pits in sites on which domestic refuse can be deposited without any possible risk of contaminating water supplies are increasingly difficult to find, and are virtually non-existent in the populous south and south-west fringes of the County. If we continue to assume that domestic refuse is out of court as filling material for any pit near a pumping station, unless it can be proved beyond doubt that all percolation from the pit passes through an efficient filtering medium, then, in time, we shall in this County be forced to decide whether :—

(*a*) To follow the example of the Metropolitan Water Board in dealing with some sources of supply and assume that our wells will be contaminated and provide for filtration, treatment, and storage.

(*b*) To bring water from more distant and safer sources.

(*c*) To transport all domestic refuse and dangerous trade wastes further and further afield as our remaining " safe " pits are used up.

* See map.

This latter is probably the solution which commends itself to the Water Companies but, even if it were practicable, it does not offer a complete answer. Excavations for building materials lead in most cases to a pit. Even where the spoil is carefully spread, it is seldom fertile, and one is left with an unsightly depression of no agricultural value which obviously ought to be filled to the natural contours of the surrounding country, capped with soil, and restored as useful land.

If domestic refuse is not to be used as a filling, one is left dependent on the non-putrescible refuse which is derived from the excavation of building sites, public works undertakings, and builders' refuse. At present, there are vast quantities of suitable material from these sources and from the clearing of bomb damage sites, but these sources of supply will gradually diminish. There is also the inorganic waste from industry, but one cannot always assume that this can safely be dumped near exposed water-bearing strata. Some trade wastes are dangerous, and some complicate the management of the tips. It is impossible to ensure that a tip approved for non-toxic, non-putrescible, and desirable materials is, in fact, used only for these. Dangerous trade wastes are difficult to get rid of. The lorry driver paid to dispose of a load of this kind cannot afford to have qualms about breaking regulations. A veneer of innocent materials masking a highly objectionable load makes it impossible for those in charge of the tip to recognize the true nature of the load until it has been discharged. In many ways one would rather see a well-controlled domestic refuse tip in a dangerous area than a badly managed tip for rubble and trade waste.

If, then, we :—

(1) Agree that abandoned workings are an intolerable eyesore ;
(2) Assume that domestic refuse is dangerous ; and
(3) Know that trade wastes can be dangerous,

we are inevitably moving towards a decision that there should be no sand or gravel digging near the belt of country which gives the best yield of water in this County.* This would be a serious decision indeed, since it would be bound to have repercussions on the costs of gravel and sand, on the industries which use these materials ; and also in the cost of disposing of builders' and trade wastes, not only in Hertfordshire but also in London and Middlesex.

Assuming, however, that restricted digging is permitted and it is agreed that worked-out pits can be left empty or reinstated with acceptable materials, we still have to consider what is to be done with domestic refuse from a town which is not within reasonable reach of a pit which the Water Authorities are prepared to approve as safe.

Many London Boroughs already have this problem. In these the freighters collect refuse and transfer it to barges or railway wagons in which it is taken to huge commercially-run tips in the country. The additional cost of handling after local collection is believed to be something in the order of 7*s.* 6*d.* per ton. Contrast this with the more fortunately circumstanced provincial town where the freighters can work to a collecting schedule arranged so that, when they are full, they are reasonably near a tipping ground. Freighters are low-geared vehicles designed for slow house-to-house collection. They are quite unsuitable for long hauls at normal road speeds and, if these hauls are done at low speed, the town loses the use of the vehicle for an unreasonable time. This problem has been tackled in one town in this County, where the local freighters discharge their loads to lorries which transport the refuse to a dump fifteen miles away. It is estimated that the contract cost of this extra haul amounts to £2,344 per annum, or 8*s.* 1*d.* per ton. In a big town, of course, convenient tips have long since been filled, and they are faced with constantly increasing haulage costs as suitable pits become more distant. Once rail transport has to be used, the question of haulage costs is affected only by rail charges.

* See map facing p. 78.

Our larger cities have long since had to resign themselves to the fact that their domestic refuse has to be conveyed some distance from the town, but the rateable value of these towns is such that this cost is not a heavy liability on the community. In a small town, however, the cost of refuse disposal may be quite a serious item in the budget, and the question of having to dispose of its refuse by rail transport as opposed to the use of a local pit may be a very serious one from the ratepayers' point of view. Refuse disposal is a continuing and unrewarding expense which does not commend itself to the ratepayers as a service in which they can take a legitimate pride.

At this point it is perhaps wise to digress and note that the only types of community which can regard the problem of the disposal of domestic refuse with equanimity are :—

(*a*) Those which are so big that they can afford, without financial hardship, to have their refuse transported to a far place and dealt with.

(*b*) Those that are so small that the refuse can be ignored and dealt with by the individual householders, or collected and disposed of in a local tip which can competently be looked after by a labourer with a shovel and wheelbarrow.

Between these extremes, we find all gradations from the tip which is just too big to be adequately cared for by the manual worker to that which is barely big enough to employ fully the machinery and experienced operators that are essential to a well-run "controlled tip" of any considerable size.

Most of the Local Authorities in this County are too small to run a full-scale controlled tip on modern lines, though this might be possible if several authorities joined together to run a central tip co-operatively. Alternatively, a contractor accustomed to handling domestic refuse might find it worth while to run such a tip more cheaply than could be done by the various Local Authorities on their own account.

I am hopeful that it may be possible to show convincingly that a well-run controlled tip is not a menace to the safety of underground water supplies, but this argument will only be valid in the case of the tip which is in fact well-run, and there will be no place in a doubtful area for the tip which is too small to justify the necessary machinery and manpower.

For these reasons I feel that co-operative tipping will probably be found to be an essential development in Hertfordshire but, even if this is true, it does not in any way invalidate the arguments in favour of having the tips as near as possible to the houses from which the refuse is produced. The cost of getting the refuse from the houses to the tip will always be an important element in the cost of any disposal scheme.

If the water interests deny the use of convenient pits for domestic refuse, and demand that it shall be taken to remote places which they regard as completely safe, it may be necessary, as was indicated in my last report, to approach the question from another angle.

The installation of water supplies to an area is expensive, but a good deal of the cost lies in the distributing system which is independent of the source of supply. Unlike the carting of domestic refuse, bringing water from a distance is not, apart from the maintenance of the rising main, a continuing charge directly proportionate to the distance. It would be interesting to investigate the protential tipping space in the neighbourhood of a water source and consider whether, over an estimated number of years, the saving in the yearly cost of transporting refuse to remote areas would be in any way comparable to the capital cost of bringing water from a safe area.

Before this is given serious thought, however, we should go back to first principles and be completely satisfied that house refuse is, in fact, as dangerous as has been suggested. It may well be that it is not, in fact, dangerous or that, if it is, the degree of danger is such that it can easily be offset by efficient chlorination of the water supplies at risk.

For some time now we have been trying to get some reliable information on this point, but there is a singular dearth of literature on this subject in this country—so much so that it was decided that the whole question offered scope for a valuable piece of research, and this was begun in collaboration with Dr. J. H. C. Walker of the Public Health Laboratory Service. It was not long before it became clear why there was so little literature. Planning a research of this kind on which there is no previous data was in itself a formidable task. When this had been done it was relatively simple to propound a theory and to try to prove or disprove one or more of the elementary assumptions upon which it was based. It was known, for example, that Sir William Savage had shown in 1903 that accumulations of household refuse heated to a considerable degree during the first few weeks. One wondered whether the temperatures reached were sufficient to kill disease germs, and we set out to show that dangerous bacteria found in fresh refuse could not be found in comparable refuse after five weeks ; but, in fact, numerous attempts to find identifiable disease-carrying germs in the fresh refuse failed completely and, though it was possible to show that there was a considerable change in the bacterial content of the refuse after five weeks, it was impossible, of course, to state categorically that disease-carrying germs would have been killed.

Since these tentative experiments were carried out, however, researches into the bibliographies on this subject led to the *American Journal of Sanitary Engineering*, vol. xxx, year 1940, in which was recorded an intensive and detailed study of work on this very subject in New York State. I have since been fortunate in having had an opportunity to meet Professor Gordon Fair of Massachussetts who was associated with this research. The American workers have shown that the temperatures of composted domestic refuse are well up into the pasteurising range, which is regarded as lethal for the types of bacteria which would be dangerous in a water supply. A formidable series of tests and observations were carried out to establish and confirm this finding.

It would be unprofitable for us in Hertfordshire to attempt to repeat in whole or in part all these elaborate investigations into a problem which must be of importance to many other Local Health Authorities, and is certainly of national importance because of the direct relationships between the economics of mineral workings and building and many industrial processes. It is surely reasonable to suggest either that the American results should be accepted in this country, and that the onus of discrediting these results should fall on the interested Water Companies ; or that, alternatively, a research should be arranged at national level on a scale which would be expected to yield some conclusive results.

Quite apart from the wisdom of looking ahead to the time when the need for some finality on the points at issue becomes a really urgent one on public health grounds, the question has already become one of great moment to the County Planning Officer. He has a duty to prepare a County Plan which contains recommendations on the use and development of land in the County. The plan will show mineral-bearing land. Before permission for the working of this land is granted by the County Council as Local Planning Authority, consideration must be given to related questions, such as the protection of public water supplies ; the need to allocate ground for the disposal of domestic refuse, trade waste, and builders' refuse ; and, finally, the proposals for reclaiming the land if this is feasible. From the planning point of view, there is, of course, an overall interest to preserve the amenities and natural features of the County. The planner cannot lightly agree to excavations unless he has in mind a reasonable proposition for making good when the work is finished.

The task of preparing a County Plan while this question of the safety of household refuse near water supplies is still under discussion has been a very difficult one and, on the public health side, we have been very conscious of the fact that we have had to be vague and elusive when advising on this subject. It has been possible, however, to lay down certain guiding principles.

It has been agreed that wet pits must not be used for domestic refuse. This is an obvious decision. The composting process which probably makes the refuse innocuous cannot be conducted in a wet pit. It may, however, be possible to fill a wet pit to water level with a non-putrescible material and tip household refuse on top. In the present state of knowledge, it would probably be argued that this can only safely be done in a pit which is wet because it is sealed with clay.

There should be no tipping on bare or thinly-covered chalk. The first reason for this prohibition is that there is a risk of direct contamination of the water supplies. It may be possible in time to show that this risk is negligible. Should this hope be realized, bare chalk will still be unsuitable. Controlled tipping requires ample supplies of soil or sand or non-putrescible materials suitable for sealing the top and sides of the working face.

Old sandpits are ideal for tipping refuse providing they are not dug out to the bare chalk surface or, alternatively, that a protective covering of adequate depth is reinstated before the pit is used.

Gravel pits are also suitable if the sides and floor are of a consistency which ensures that there will be reasonable filtration of any seepage. The gravel merchant might well find it worth while to stop short before the gravel has been dug out to its full depth or, alternatively, to spread the spoil at the bottom of the pit in order to leave the pit suitable for filling with refuse. In certain pits, the consistency of the gravel may be such that its value as a filtering medium is doubtful. In these circumstances, it may be possible to stipulate that a substantial layer of sand is used as a seal to bottom and sides if refuse is to be tipped.